IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
GAINESVILLE DIVISION

CINDY COSPER, INDIVIDUALLY AS SURVIVING CHILD OF RONNIE AMMERSON and ALLAN MYERS AS TEMPORARY ADMINISTRATOR OF THE ESTATE OF RONNIE AMMERSON	)	
Plaintiff,	)	
vs.	)	CIVIL ACTION FILE NO. 2:18-cv-00189-RWS
FORD MOTOR COMPANY,	)	
Defendant.	)	

PLAINTIFF'S RESPONSE TO FORD MOTOR COMPANY'S MOTION FOR SUMMARY JUDGMENT

Comes now Plaintiff in the above-styled matter, by and through her counsel of record, and files this *Plaintiff's Response to Ford Motor Company's Motion for Summary Judgment*:

A. SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate when "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242,

248 (1986); *Connell v. Metro Corral Partners, LLC*, Civil Action 1:19-cv-2710-SDG, at *4 (N.D. Ga. Mar. 28, 2022). A party seeking summary judgment has the burden of informing the district court of the basis for its motion and identifying those portions of the record that demonstrate the absence of a genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

Summary judgment should be granted "if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law." F.R.Civ.P. 56(c). The moving party is "entitled to a judgment as a matter of law" when the nonmoving party fails to make a sufficient showing on an essential element of her case. *Celotex Corp. v. Catrett,*477 U.S. 317, 322-323 (1986).

"A factual dispute is genuine 'if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.'" *United States v. Four Parcels of Real Prop. in Greene & Tuscaloosa Ctys. in State of Ala*., 941 F.2d 1428, 1437 (11th Cir. 1991) (quotation omitted)

B. PRESENTATION OF FACTS COMMON TO ALL MOTIONS

a. THE SUBJECT ACCIDENT

1. The subject accident occurred on December 25, 2015 at 3:34 p.m.[1]

2. The accident occurred on Corinth Poseyville Road in Haralson County.[2]

1 Exhibit 01 – Traffic Accident Report

2 Exhibit 02 – Deposition of Trooper Joey Wilson at page 37.

3. In the area of the collision, Corinth Poseyville Road is a two-lane, asphalt, rural, 21' wide road with approximately 10.5 feet wide lanes and no improved shoulders.[3]

4. The environmental conditions at the time of the accident were clear and dry.[4]

5. The posted speed limit at the scene was 45 mph.[5]

6. The approach to the accident scene is a slight upward grade (2.3%) that flattened out in the area of the rollover, and essentially a straightaway.[6]

7. Cindy Pollard (Plaintiff) was the driver of the crash-involved Explorer.[7]

8. Ronnie Ammerson was the front seat passenger.[8]

9. Trooper Wilson issued a traffic ticket to Cindy Pollard on December 25th for failure to maintain lane. That was routine procedure for Trooper Wilson any time there is property damage or injuries to anyone other than the driver.[9]

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3 Exhibit 03 – Report of Kelly Kennett at page 2.
4 *Id.* at page 2.
5 *Id.* at page 2.
6 *Id.* at page 2.
7 Exhibit 02 – Deposition of Trooper Joey Wilson at page 38.
8 *Id.* at page 39.
9 *Id.* at page 11.

10. There were no true eyewitnesses to the accident that the Trooper statementized as part of the investigation.[10]

11. The Trooper did not take measurements of physical evidence at the scene[11], and did not reconstruct accidents as part of his job duties nor did he attempt to reconstruct the subject accident.[12]

12. The driver (Ms. Pollard) informed the Trooper at the scene that she was "thinking about other things and ran off the road"; that she had not been drinking; and that she was traveling the speed limit.[13]

13. The Trooper concluded that Ms. Pollard turned the steering wheel the amount she felt was necessary under the circumstances[14], but he was unable to determine how much she turned the steering wheel.[15]

14. Mr. Ammerson was pinned by the seatbelt and scene first responders were cutting the belt.[16]

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10 *Id.* at page 17.
11 *Id.* at page 18.
12 *Id.* at page 24.
13 *Id.* at page 41.
14 *Id.* at page 89.
15 *Id.* at page 89.
16 *Id.* at page 43.

15. The Trooper did not check tire tread depth because he does not issue citations for improper tread on tires.[17]

16. The investigating Trooper concluded the Explorer had rolled three quarter turns.[18]

17. After the initial drift off the road, available scene evidence and a formal reconstruction of the accident revealed that the subject Explorer initially re-entered the road in a counterclockwise yaw, leaving marks that are a combined 35.1' long.[19]

18. Physical evidence showed a 27' gap before a second set of yaw marks were left on the pavement, which represented the beginning of a 53.2' clockwise yaw as a result of a right (clockwise) reverse steer maneuver.[20]

19. These second, clockwise yaw marks, terminated with the vehicle going airborne with the driver-side leading and at tire slip angle of ~14 degrees.[21]

20. The Explorer initially laid over on the driver's side for approximately 43' until it reached the soft dirt shoulder, leaving on-road scrape and gouge marks that were contiguous through the northbound lane, clearly reflecting a vehicle continuously

17 *Id*. at pages 78-79 and page 87.
18 *Id*. at page 81.
19 Exhibit 03 – Report of Kelly Kennett at page 6.
20 *Id*. at page 6.
21 *Id*. at page 6.

sliding on its hard metal surfaces at the quarter roll position and not yet rolling over its wheels.[22]

21. Upon reaching the shoulder, the left side front hood and fender engaged with the dirt and initiated further overturning of the vehicle.[23]

22. The total distance from the three-quarter roll position to the final rest (2¾ roll position) was approximately 51', with the prior half roll (from ¼ to ¾) covering an additional 47'.[24]

23. Using established methodology, speed at the three-quarter position was determined to be 25-28 mph, with likely speed at the initiation of the first evidence of yaw marks was 50-55 mph.[25]

b. THE OPERATIVE COMPLAINT

24. The operative complaint is the First Amended Complaint filed on January 7, 2020.[26]

25. The Complaint includes the following allegations: A claim for strict liability for design, manufacture, and warnings under O.C.G.A. § 51-1-11; [27] That the

22 *Id*. at page 6.
23 *Id*. at page 6.
24 *Id*. at page 6.
25 *Id*. at page 7.
26 ECF Doc. 49.
27 *Id*. at ¶¶ 31-44.

subject Explorer was unfit for the foreseeable uses for which Ford marketed and sold the Explorer (a passenger carrying vehicle);[28] The subject Explorer was free of any alterations or aftermarket changes that affected the roof, seatbelt system, or the vehicle's propensity to rollover, and was in the same condition and engineered configuration at the time of the subject accident as when the vehicle was manufactured and originally sold, with the only variation being normal wear to a vehicle its age. Any wear or alteration was immaterial to the claims in this lawsuit;[29] The subject Explorer was defective due to its rollover design;[30] The Ford Explorer's roof failed and crushed into the vehicle;[31] Mr. Ammerson's injuries, including but not limited to, his vertebrae fractures and incomplete quadriplegia, were a direct and proximate result of the failure of the Ford Explorer's roof and the failure of the Ford Explorer's seatbelt to perform properly during the rollover;[32] The Plaintiff's death resulted from the design of the roof and restraint system;[33] The Explorer's restraint system did not perform appropriately;[34] The Explorer's restraint design failed to incorporate pretensioners as an alternative

28 *Id*. at ¶ 36.
29 *Id*. at ¶ 26.
30 *Id*. at ¶¶ 27 and 37.
31 *Id*. at ¶¶ 12 and 37.
32 *Id*. at ¶¶ 21 and 27.
33 *Id*. at ¶ 22.
34 *Id*. at ¶¶ 13 and 37.

design;[35] That alternative safer designs existed that would have prevented the rollover and injuries suffered by the lack of protection or crashworthiness of the roof and belt system;[36] The Plaintiff died as a proximate result of the injuries he sustained from the rollover accident;[37] Ford knew, at the time it manufactured the subject Explorer, that the Explorer rollover propensity was unsafe[38]; knew that the roof was structurally defective[39]; and knew that the restraint system (seatbelt system) was unsafe in rollovers[40], and Ford's conduct showed willful misconduct, malice, wantonness, oppression, or an entire want of care creating a presumption of conscious indifference;[41] and a claim for expenses and fees pursuant to O.C.G.A. § 13-6-11, which allows for expenses and fees where the defendant has acted in bad faith, has been stubbornly litigious, or has caused the plaintiff unnecessary trouble and expense.[42]

c. THE SUBJECT 2000 MODEL FORD EXPLORER

26. The subject vehicle is a 2000 4-door Ford Explorer vehicle bearing VIN 1FMZU64P6YUB78663.[43]

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35 *Id*. at ¶ 14.
36 *Id*. at ¶ 39.
37 *Id*. at ¶ 20.
38 *Id*. at ¶ 23.
39 *Id*. at ¶ 24.
40 *Id*. at ¶ 25.
41 *Id*. at ¶¶ 28 and 45-48.
42 *Id*. at ¶ 49.
43 Exhibit 04 - Vehicle Information Report.

27. The subject Explorer is a 2-wheel drive (4x2) manufactured by Ford Motor Company in June of 2000.[44]

28. The subject Explorer was first sold by Ford in July 2000.[45]

29. Prior to the subject accident, the subject Explorer was involved in a crash (in 2013), and then, as permitted by Georgia law, was rebuilt and issued a rebuilt title[46], which under applicable law means that the rebuilt vehicle passed all Georgia Motor Vehicle Division Inspection.

30. After Ms. Cosper purchased the subject vehicle, and prior to the accident, she replaced all four tires on the subject Explorer. Two of the tires were purchased new and two were purchased used, and the tires were of different makes and models, and one was a different type of tire.[47]

31. The subject Explorer was examined thoroughly and despite having foreseeable tire and suspension changes and ordinary wear and tear, the vehicle's condition at the time of the accident as it relates to the claimed defects and deficiencies are concerned, was in the same or similar condition as it was at the time it was manufactured in the year 2000.[48]

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44 *Id*.
45 *Id*.
46 Exhibit 05 - Deposition of James Nix at page 26:16-27-14.
47 Exhibit 06 - Deposition of Cindy Cosper [Doc. 99], 33:24-34:2).
48 Exhibit 39 - Report of Mark Arndt at page 7.

32. The defective nature of the design of the Explorer from a rollover standpoint is well-documented.

33. Although not disclosed in Ford's rather one-sided factual recitation, Plaintiff's vehicle design expert, Mark Arndt, fully evaluated the tire usage and concluded that based on his experience and testing, the described tire conditions on the subject Explorer would not have created detectable differences, were reasonably foreseeable modifications from a design standpoint, and were well-within the envelope of expected use of any vehicle marketed for consumer usage.[49]

34. Mr. Arndt also provided the following detailed analysis of his evaluation, which included the following: (1) Each vehicle, including the subject vehicle, must be designed with a margin of safety that takes into account foreseeable changes in tires, tire sizes, because those type changes occur and are anticipated by Ford, and that minor differences in tire makes, models and sizes should not be what controls safe performance of a design;[50] (2) Mr. Arndt's testing did not show different results and different tip-up responses, but in fact proved that the tire differences were not the cause of any significant or major difference in performance, but played a role in the SSF (static

49 *Id*. at page 8.

50 Exhibit 08 - Deposition of Mark Arndt at page 81, line 7-25 to Page 82, lines 1-9.

stability factor);[51] (3) That the tires on the subject vehicle actually helped reduce the center of gravity from the Ford-recommended tires rather than making the vehicle more prone to rollover;[52] (4) As for tread depth, and specifically the tire that was "bald", Mr. Arndt verified that that condition would play no role in the accident on dry pavement.[53]

35. With regard to Ford's statement that Georgia law requires all vehicles to have tires with at least 2/32 of an inch of tread (citing O.C.G.A. § 40-8-74 (e)(1)), although that citation is accurate, that is a minor non-safety related traffic violation as emphasized by the fact that the investigating State Trooper did not even check the tires and, even if he had, would not have cited the owner for the violation. *See* footnote 13, *supra*.

36. Regarding the other component parts referenced by Ford to have been poorly maintained, including sway bar links, most of the bushings, and the shocks, although all parties agree that these components were at the time of the accident exhibiting normal wear and tear with apparent lack of routine maintenance, evidence makes clear that none of these conditions contributed to the cause of this rollover accident given the fundamental design of the vehicle, and that the alternative safer

51 *Id*. at 7page 35, lines 1-16.
52 *Id*. at page 116, lines 5-9.
53 *Id.* at page 115, lines 17-25.

design would not have rolled over in this accident even with similarly worn components.[54]

37. Ford's own retained design engineer, Don Tandy, conceded that the suspension component wear shown on the vehicle, shock changes, and tire condition were not the cause of the subject Explorer rollover.[55]

d. THE FORD EXPLORER DESIGN HISTORY

1. HANDLING AND STABILITY

38. A policy has existed for decades at Ford requiring that Ford advance the state-of-the-art in safety where the engineering is practical to do so, including continuous improvement in safety in the areas of accident avoidance and occupant protection.[56]

39. Ford's safety policy in place as of 2000 required that Ford consider performance throughout the life of the vehicle, not just when the vehicle is new.[57]

54 *Id.* at pages 128, lines 18-25 to page 129, lines 1-10. See also, ECF Doc.# 103 Expert Report of Ford expert Don Tandy.
55 ECF Doc. #111, Exhibit 09 - Deposition of Don Tandy at page 24, lines 2-25.
56 Exhibit 10 - Ford Motor Company Safety Policy (12/17/87).
57 Id.

40. Ford's safety policy likewise specifically stated that "the issue of cost should not preclude consideration of possible alternatives", but that decisions or priorities must be made based on safety benefits to consumers.[58]

41. Ford classifies the Ford Explorer as a Multi-purpose Vehicle or "MPV".

42. MPV is defined in 49 CFR § 571.3(b) as any motor vehicle with motor power, except a trailer, designed to carry 10 persons or less and is constructed either on a truck frame/chassis or is equipped with special features for occasional off-road operation.

43. Off-road features have been interpreted by the government since 1979 as requiring multiple features, as opposed to just one feature, and that the MPV classification is dependent not on what the manufacturer calls it, but rather on the vehicle's total design and its likely use by the public. Four-wheel drive capability alone is insufficient to qualify a design as an MPV because four-wheel drive is useful in snow, on public streets, roads and highways and is not determinative of vehicle classification.[59]

58 *Id*.

59 Exhibit 11 - 1979 Interpretation letter by NHTSA regarding MPV classification.

44. The Ford Explorer was first produced in 1990 to replace the Bronco II starting in the 1991 model year. The Bronco II had a proven dangerous tendency to flip over during typical emergency turning maneuvers.[60]

45. The Explorer was derived from the Bronco II and evidence of its development history shows how and why the Explorer's instability defect came to exist, including the referenced proof herein that Ford had actual knowledge from its experience with the Bronco II, including the poor SSF or Stability Index, that consumers were being seriously injured in Bronco II rollovers as they were developing the Explorer design that is at issue here.[61]

46. The Bronco II and all versions of the Explorer are fundamentally the same design for purposes of geometric configuration and rollover.[62]

47. Ford marketed the Explorer as a station-wagon-type replacement for use by consumers as a family's transport vehicle for use at freeway speeds. Specific focus was placed on the marketing of the Explorer to women and for use in transporting children and families.[63]

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60 Exhibit 12 - *Ford v. Ammerman*,705 N.E.2d 539, 545-547 (Ind. 1999).
61 Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008).
62 Exhibit 07 – Affidavit of Mark Arndt.
63 Exhibit 39 - Report of Mark Arndt at page 7.

48. The Explorer began as the "4-door Bronco II" during development.[64] Ford changed the name when the Bronco II came under severe public scrutiny as deaths mounted from rollover crashes.

49. Stability problems associated of the Explorer developed as early as May, 1987, when Ford engineers reported that the Explorer's SSF was worse than the Bronco II.[65] The engineers recommended that Ford increase the Explorer's track width, lower the height of the vertical center of gravity, and use smaller tires, called P215/75R15 tires. These proposals were all designed to result in a more stable vehicle with a better SSF rating. The design change recommendations were adopted by management.[66]

50. As development continued in the late 1980s, computer analysis of the Explorer design revealed that it still had two-wheel lift in typical emergency maneuvers,[67] thus resulting in Ford engineers recommending deflation of the tires from 35 to 26 psi in an effort to make the tires more sluggish and help

64 Exhibit 14 - Ford document EXP2 0236.
65 Exhibit 15 – Ford document EXP4 213-21.
66 Id.
67 Exhibit 16 - Ford document 8547 at 8548.

cosmetically keep the wheels of the design on the ground during test maneuvers.[68] This was a technique Ford had investigated for almost a decade.[69]

51. In the late spring and early summer of 1989, after the Bronco II design was publicly humiliated when it tipped up in testing at Consumers Union, Ford management sent the engineers to Ford's Arizona test facility to test the Explorer rollover design against the Bronco II and the Chevy S10 Blazer.[70]

52. The Arizona testing revealed that the Explorer design was rolling over (two-wheel lift) at speeds equivalent to the Bronco II's poor performance. As reflected in the following excerpt from a Ford employee's deposition, the Blazer did not demonstrate a rollover problem like the Explorer.

> Q Do you recall whether or not Ford was unable, under any set of circumstances, to make a Blazer tip up in the Consumer Union maneuver, either long course or short course, during the 1989 testing?
> A Right At that point I don*t recall what people were telling me relative to the Blazer
> Q But you've seen the charts?
> A Yeah" That's where I was going to go. I've seen data, and I've seen videotape, and they didn't -- the S10 Blazer did not tip up in the evaluation.[71]

68 Exhibit 17 - Deposition of Ford engineer Roger Simpson (11/3/00) at pages 156-57.
69 *Id*. at pages 159-60.
70 Exhibit 18 – Deposition of Don Tandy (3/3/00), at page 23, lines 17-23.
71 *Id*. at page 22.

53. Because Ford was aware of the significance of this finding in the marketplace, Ford engineers again recommended to management that the design be changed.[72] The four proposed changes were designed to help cure the wheel lift problem and achieve performance equivalent to the Chevy S10 Blazer.[73]

54. Rather than accepting the recommendations of the engineers, Ford management chose to adopt only two of the four design change recommendations and agreed to consider the rest of the design changes as "running changes" in subsequent model years.[74] Ford has conceded that no subsequent "running changes" were ever made.

55. Ford's decision not to adopt all of the safety recommendations was based on the cost of a delay in production of the Explorer, called "Job 1," and the costs associated with making late changes to the vehicle and thus a delay in the launch date.[75]

56. Ford's internal documents reveal a company "subjectively" aware of the risks posed by the final design of the Explorer and that a "conscious" decision was made by management to accept the risk of that design in the hands of

72 *Id*. at pages 47, line 10 to page 49, line 25.
73 *Id*. at pages 33, line 11 to page 35, line 15.
74 *Id*. at pages 50, line 7 to 51, line 9.
75 *Id*. at pages 49, lines 23-25.

consumers. The following statement comes directly from a Ford internal document and shows that Ford was aware of the risk associated with the design of the Explorer when equipped with the larger (P-235) tires and that the highest levels of management at Ford consciously chose to accept the risk to the public, stating: ***"Management is aware of the risk and has accepted the risk"***[76]

57. In 1989, Ford had studied rollover accidents and accident data and documented its knowledge that SUV rollover accidents were almost always precipitated by a loss of directional stability (loss of control), which included situations where consumers were faced with maneuvering to avoid obstacles, careless passing, distraction or lack of attention, falling asleep, excessive speed, driving under the influence, or brake lock-up situations.[77]

58. Ford's 1989 analysis showed that the referenced maneuvering situations with SUVs like the Explorer almost always resulted in an excursion off of the paved roadway, onto the shoulder, and then, depending on the driver's reaction, a road reentry with significant yaw (spin) velocity and vehicle side slip.[78]

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76 Exhibit 19 – Ford document EXPI 619-24.

77 Exhibit 20 - Ford document EXPN 1111 (4/21/89): Observations on SUV Fatal Accidents.

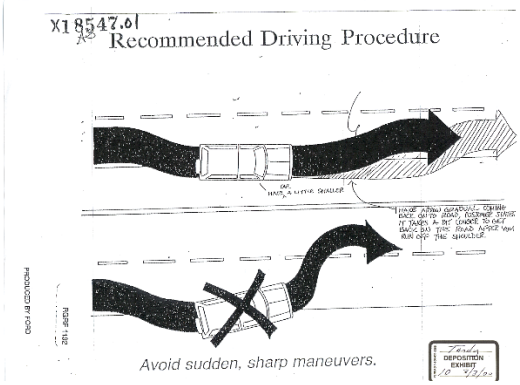
78 *Id*.

59. Ford likewise documented in the same 1989 analysis, that once the SUV partially or totally left the roadway, conventional or traditional handling parameters were no longer relevant to the outcome, and the vehicle's behavior would be dominated or controlled by simple effects, such as vehicle geometry and steering gain, which are key elements of the design of the vehicle.[79]

60. Ford's 1989 analysis even noted that the greatest risk in these off-road reentry situations with SUVs was the application of more steering input that would be required to maintain a straight line, and the problem was that "very few drivers" had experience with this condition and that excessive input was "likely" in SUVs, and that care had to be taken in designing the vehicle's ability to withstand high velocity sideslip and yaw rates without rolling over.[80]

61. Ford's knowledge of the danger in the Explorer design for the off-road reentry maneuvers was so intense that the engineers even drew pictures of the danger while struggling with whether to warn, and if so, how they could try to warn drivers about this design-related danger.[81] The following insert is the Ford drawing:

79 *Id*.
80 *Id*.
81 Exhibit 21 - Ford document RGRF 1192 (drawing with handwritten commentary).



62. The conclusion reached by Ford's safety engineers in 1989 was that operator demographics – the intended users of the SUV – and the fundamental vehicle classification – an SUV for example – were the "controlling factors" in determining deaths in rollover accident statistics. In other words, the key factors that dictated rollover deaths was vehicle geometric design and intended users of the design.[82]

63. To address this SUV risk internally in 1990, Ford created a "*Resistance to Rollover Guideline*" that identified the key objective to "design and develop a vehicle that will remain stable under all operation conditions, including accident avoidance maneuvers", and that the "vehicle should respond in a predictable manner and give the driver perceptible signals that the vehicle is at its limit."[83]

64. In creating this SUV-related guideline in 1990, one must keep in mind that in 1973 when faced with government rulemaking on the issue or vehicle rollover, Ford

82 See Exhibit 20 - Ford internal document EXPN 1111 (4/21/89): Observations on SUV Fatal Accidents..

83 Exhibit 22 - Ford: 1990 Rollover Resistance Guideline (EXP1 2175).

had informed the government that Ford's standard for passenger-carrying cars was that passenger cars had to be designed to be "forgiving of all manner of unskilled driver situation that precipitate wild, panic motivated, evasive maneuvers of drivers of widely varying abilities" and that "Ford passenger cars are designed to 'forgive' or, in the extreme, to 'slide-out' rather than roll over on flat, level pavement."[84]

65. Ford's internal requirements also recognized the importance of the concept of safety margins being designed into the vehicle to ensure that loss of control and rollover would not occur, at speeds as high as 80 mph, on wet and dry surfaces, in evasive maneuvering.[85]

66. Contrary to its own internal, decades-old standards, the evidence from Ford's own files demonstrates that long before the 2000 model Explorer was sold, Ford's engineers had *actual knowledge* that the Explorer's design was unstable and prone to rolling over in emergency maneuvers due to its high center of gravity and narrow track width,[86] and that Ford had known for decades the importance of vehicle

84 Exhibit 23 - Ford letter to the US Government on 8/15/73.

85 Exhibit 24 - Ford document EXPE1 0000480 – P6-101 subjective evaluation requirements.

86 See Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008).

stability in emergency maneuvers, and knew that on flat, dry pavement, such as here, a car or truck should slide out, rather than roll.[87]

67. As further proof of Ford's knowledge, in April 1989, a year before the Explorer was first sold to the public, Ford executives objected to and tried to stop the release of a damaging Consumer Reports article on Bronco II instability. Regarding these efforts, Jerry L. Sloan of Ford's public affairs office wrote: "We think going in we were in deep trouble regarding our rollover rates. . . Our rollover rate is three times higher than the Chevy S-10 Blazer. . . . [T]he [Fatality Analysis Reporting System (FARS)] data put us in a bad light. . . We think, however, that we have clouded their minds. . . ." Rather than making design improvements in stability for the Explorer, Ford used the Bronco II platform, as evidenced by the fact that the Explorer had almost exactly the same track width, high engine mount and elevated center of gravity as the Bronco II, which caused the same instability problems, and over one-half of the parts for the four-door and 80% for the two-door Explorer were carried over from the Bronco II.[88]

68. The evidence from Ford's internal records also proves that Ford knew the design problems associated with the design of the Explorer were the result of

87 *Id.*

88 *Id*. See Also, Exhibit 25 - Deposition of Jerry Sloan at page 66:13, 76:17-77:10.

"fundamental package constraints"; that the "high roll center" prevented further improvement in the design of the vehicle; that the "high roll center" reduced the effectiveness of the roll control devices designed to help the vehicle's stability; that the "high roll center" resulted in "overshoot"; that the design created a situation where the center of gravity would rise in a turning maneuver; and conceded that the Explorer would "likely" get poor results in consumer safety testing.[89]

69. Although the Ford engineers had earlier recognized a safer design to fix the problems, the changes were ignored by management due to concerns over a "delay" in production of the vehicle, which in turn meant lost revenue.[90]

70. Within weeks of the recognition of a design problem, Ford engineers tested an Explorer and compounded the problem even further with the bad news that the Explorer front suspension system - a twin I beam-type suspension at the time - had "high levels of front suspension jacking" that further compounded the fundamental design flaws.[91]

89 Exhibit 26 – Ford document EXPU 8308.
90 *Id*.
91 Exhibit 27 – Ford document 9863.

71. Suspension "jacking" is a phenomenon associated with swing-axle-type suspension systems that causes the center of gravity to rise and the track width to narrow in turning maneuvers.[92]

72. Representatives retained by Ford have likewise confirmed that the 1991-1994 Explorer front suspension systems perform no differently from the 1995 and later model Explorer vehicles in this regard.[93]

73. The evidence also demonstrates that Ford had an opportunity to improve the Explorer's stability when it modified the Explorer front suspension design for the 1995-2000 models. But again, financial considerations prevailed and, according to a 1990 internal Ford document, Ford decided "not [to] take advantage of the fact that the engine could be lowered with the modified suspension. This decision was driven by early implementation and program cost. As a result, the 2000 model Explorer was no more stable than the original model or its prototypes.[94]

74. Objective and subjective knowledge of the dangers associated with the design of the Explorer was not limited to just Ford engineers. In early December 1989, Frank Figliomeni, an engineer employed by Firestone who was working with

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92 Exhibit 28 – (noting that jacking exacerbates the high center of gravity and narrow track width thus making it inherently unstable for rollover)

93 Exhibit 29 – Deposition of Lee Carr at pages 138:21 - 139:9.

94 See Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008).

Ford on the design and development of the Explorer (using computer simulation models), reported to Ford that the Explorer's wheels were continuing to lift off the ground in the analysis work he was doing and told Ford that "I can't believe that (wheel lift) would be viewed as desirable."[95]

75. The undesirable nature of such a design is further supported by the testimony of Don Tandy, the Ford employee involved in the communications, and who now serves as Ford's primary design expert in this litigation. In sworn testimony, Mr. Tandy stated[96]:

> 22 Q, And why, from a design standpoint, do you
> 23 want a vehicle that has a high resistance to rollover
> 24 and keeps four wheels on the ground as opposed to
> 25 having two come off?
> 0009
> 1 A. I guess that depends on the maneuver. But
> 2 you want a vehicle to have a high resistance of
> 3 rollover to be a safe vehicle, to be reasonably safe if
> 4 used in a reasonable way.

76. Facing a deadline of early 1990 for release of the Explorer to the public (Job 1), the engineers at Ford were scrambling to find some cosmetic fix to the vehicle so that it would somehow artificially pass Ford's internal standards for rollover resistance; *i.e.*, keeping the wheels on the ground. Instead of fixing the

95 Exhibit 30 - Firestone document [12/89] at pages 2 - 3.
96 Exhibit 31 – Deposition of Don Tandy at pages 8-9.

vehicle, which the engineers had already recommended, Ford chose instead to limit the cornering capacity of vehicle by letting air out of the tires: reducing the air pressure from 35 to 26 psi.[97]

77. In early 1990, Ford released the Explorer to the public with full knowledge that the design posed a risk, including a litigation risk, for the company, and that company lawyers were well into a silent plan to keep evidence of the knowledge of this problem away from consumers. The internal memo issued shortly after introduction of the Explorer prophetically pointed out that the "rollover problem" was one that Ford had successfully avoided thus far by "settling" the litigation. However, given the design of the Explorer, the Ford engineers noted that their success "may not continue now."[98]

78. This was especially true given that the S10 Blazer passed the Ford testing without rollover while the Explorer "had problems."[99]

79. Engineers working for Firestone had likewise recognized "bad oversteer" problems with the Explorer during testing and had informed Ford.[100]

97 Exhibit 32 – EXPT 0288
98 Exhibit 33 – EXPV 69
99 *Id*.
100 Exhibit 34 - BMD; Oversteer is a recognized undesirable characteristic best illustrated by a design that spins out.

Firestone later stated in writing that "an oversteer vehicle is not safe at highway speeds in the hands of an average driver" and must be regarded as a safety defect.

80. Consistent with the already expressed concerns about the "rollover problem" becoming publicly known through litigation, Ford took yet another step towards the concealment of knowledge of problems associated with the design of the Explorer. On September 6, 1990, a Ford engineer sent a memo to Firestone advising Firestone to no longer put computer test results in writing, thus further illustrating the depth of Ford's knowledge and recklessness.[101]

81. Ford's decision to deflate recommended tire pressure to 26 psi resulted in decreased fuel economy due to the greater friction between the lower-inflated tires and the road. Immediately following Job 1 in 1990, Ford management began raising "concerns" about the poor "rolling resistance," or higher friction, and the resulting harm to the fuel economy.[102] According to internal Ford documents, the Explorer was seven percent [7%] worse than its competition from a fuel economy standpoint.[103] As a consequence, Ford management ordered an improvement in fuel economy performance. Ford employee Jim Burdette was charged with the

101 Exhibit 35 – Ford document FMC 183 (1990).
102 See Exhibit 17 – Simpson Deposition at pages 164, line 4 to 167, line 1.
103 *Id*. at pages 166, line 12 to 167, line 4.

responsibility of achieving this improvement through modification of the rolling resistance of program tires.[104]

82. In order to try and achieve the necessary improvement, Mr. Burdette had three options: (1) modify rubber compounds; (2) put air back in the tires; or (3) reduce the weight of the tires. According to Mr. Burdette, the problem with option one was modified rubber compounds altered the traction characteristics of the tires to the extent that the wheels of the Explorer would not stay on the ground in turning test maneuvers.[105]

83. After learning of this fact, Mr. Burdette requested that the engineers again increase the recommended tire inflation pressure back to 35 psi.[106] But Mr. Burdette's request was never heeded because this change also caused the wheels of the Explorer to lift off the ground in turning test maneuvers,[107] the condition that had prompted Ford's request to take air of the tires to begin with, and the problem clearly highlighted by both Ford and Firestone engineers during vehicle testing. In the end, the tire weight was reduced.[108]

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104 Exhibit 36 – Deposition of James Burdette (12/21/00) at pages 8, line 21 to 9, line 11.
105 *Id*. at pages 12 to 17.
106 *Id*.
107 *Id*.
108 *Id*.

84. By 1996, Ford was overwhelmed with Bronco II and Explorer rollover lawsuits, adverse media exposure about the rollover problem, and was still struggling with defending the Explorer in court rather than making the design safe. Engineers in Ford's Automotive Safety Office, for instance, in 1996 knew that the J-Turn test procedure Ford was using was not legitimate and struggled internally to change the test, but its chief technical engineer was more concerned with lawsuits than he was with safety, as evidenced by the statement that "… even exploring other criteria for roll-over stability could jeopardize our standing in court …".[109]

85. The Explorer rollover problem was not limited to the U.S. In 1997, Ford of Venezuela attended a meeting with lawyers there to discuss a rash of Explorer rollover crashes.[110,36] The problems included "mistakes" made by both Ford that Ford later admitted likely resulted in harm to citizens of Venezuela.[111,37]

86. The Venezuelan scenario, and Ford's admissions in relation to its conduct there, are important for US citizens because the Explorer provided in Venezuela was virtually identical to the Explorer design provided to U.S. residents.

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109 Exhibit 37 - Ford document FAAB 1440286 – Email from Ulrich Eichorn (10/31/96).

110 Exhibit 38 – Deposition of Thomas Baughman at page 154, line 8.

111 *Id*. at pages 156, line 8 to page 160.

87. After 100 deaths and 400 crashes in Venezuela were linked to the Explorer, Ford made design changes on Explorers in Venezuela, Colombia and Ecuador .

88. The Explorer's propensity for rolling over is a direct function of the geometric relationship between its track width and center of gravity height, which is commonly referred to as Static Stability Factor, Stability Index, or simply by the acronym "SSF:. As early as the late 1970s and early 1980s, Ford internal records acknowledge the importance of the role of SSF in the design and evaluation of rollover resistance, including Ford's use of the SSF in its design and development process.[112]

89. SSF is calculated for a vehicle by using the formula SSF=T/2H, where T is the 'track width of the vehicle and H represents the 'height of the center of gravity'. The track width is the distance between the centers of the right and left tires along the axle. The location of the center of gravity is measured in a laboratory to determine the height above the ground of the vehicle's mass. The lower the SSF number, the more likely the vehicle is to roll over in a single-vehicle crash due to the less force required to roll it over.[113]

90. The subject Explorer SSF was reported as 1.06.[114]

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112 Exhibit 39_- Expert Report of Mark Arndt at page 4.
113 *Id*. at page 11.
114 *Id*. at page 11.

91. The NHTSA [National Highway Traffic Safety Administration] has long recognized the concept of SSF as related to evaluating rollover propensity. As explained by one former NHTSA safety administrator, William Boehly, the center of gravity height of the vehicle design is the parameter of real interest in the calculation of SSF as it relates to vehicle rollover.[115]

92. Not only has the NHTSA recognized a direct correlation between SSF and rollover propensity, the Agency has long-recognized through detailed studies that SSF is a valid "predictor" of whether an individual vehicle - such as the Explorer - will have a tendency to roll over in the real world from a design standpoint, and is an important factor in defining the rollover performance of a vehicle.

93. The scientific status of using SSF to predict and evaluate the safety characteristics of a vehicle's design is not limited to just the NHTSA, Ford engineers concluded as early as the 1980's that SSF is a primary factor in evaluating vehicle design insofar as rollover performance is concerned.

115 Exhibit 40 – Deposition of William Boehly (7/11/01) at pages 14-16.

94. Ford records also establish that SSF is such an important concept at Ford that management has from time to time actively become involved in instructing design engineers to modify vehicle designs to improve the SSF.[116]

95. In the 1980's, Ford's Automotive Safety Office established safety guidelines regarding vehicle design that were based on the concept of SSF (43), and Ford has conceded under oath that SSF is an important factor in evaluating the design and performance of a vehicle from a rollover standpoint.[117]

96. One common use of SSF is to compare designs with competitive vehicles currently on the market.[118]

97. SSF is routinely evaluated with and without loading of occupants and luggage because it is a well-known fact that SSF gets worse (more prone to rollover) as SUVs are loaded with occupants and cargo.[119]

98. Center of gravity height, which is one of the two components making up the formula for SSF, is directly related to rollover stability because as the center of gravity increases, rollover stability becomes poorer.[120]

116 Exhibit 53 – Deposition of Fred Parrill at page 23:15.
117 Exhibit 54 – Deposition of Fred Drotar at page 23:15.
118 *Id*. at page 23:3-7.
119 *Id*. at pages 57 and 122-124.
120 *Id*. at page 113-14.

99. Ford's Safety Design Guidelines even recognized the critical importance of center of gravity height as evidenced by the fact that rollover resistance testing was not even a requirement for passenger cars unless the center of gravity was in excess of 23."[121]

100. It is a proven fact that a vehicle with a higher center of gravity will have a greater tendency to lift wheels off the pavement in turning maneuvers.[122]

101. With respect to track width, the other element making up the formula for SSF, Ford engineers have long recognized that increasing the track width [making the vehicle wider] results in substantially increased rollover stability.[123]

102. Ford engineers agree with Plaintiff's engineers that a vehicle should be designed to virtually preclude driver overreaction in a steering maneuver.[124]

103. Ford engineers likewise agree that a "reasonably safe" vehicle should be designed to remain stable for all speeds with maximum steering wheel input demands.[125]

121 Exhibit 41 - Ford Document FAAB 1102819 (1/29/99 – SDG).
122 See Ex. 54 (Drotar) at page 57.
123 *Id*. at page 24:12-16.
124 *Id*. at page 149:8-13.
125 *Id*. at page 151.

104. Ford engineers likewise agree that a vehicle design must be optimized so that it will respond safely to large turns of the steering wheel typical of accident avoidance type maneuvers by inexperienced consumers.[126]

105. Ford engineers have likewise agreed that rollover propensity must be reduced to a minimum by taking all available steps.[127]

106. Ford engineers have likewise agreed that a vehicle design is "unsafe" if it shows a tendency to roll over on flat, level pavement in turning maneuvers.[128]

107. Ford engineers have conceded that a "reasonably safe" vehicle should be designed so that wheels do not lift off the paved surface of the roadway in limit maneuvers typical of accident avoidance situations in the real world.[129]

108. Ford engineers have testified that even one wheel lifting off the ground is considered a "deficiency" in the design of the vehicle.[130]

109. The Explorer design is a common design regardless of model year. The 1991 through 2001 model years of the Explorer were produced in two-wheel drive and four-wheel drive configurations. Consumers also had a choice of two-door or four-door Explorers in all such model years. Various models of the Mazda Navajo and Mercury

126 *Id*. at page 153.
127 *Id*. at pages 140:18 to 141:5.
128 Exhibit 55 - Deposition of David Bickerstaff at page 106: 7-17.
129 *Id*. at pages 106 and 109-110.
130 Exhibit 56 – Deposition of Paul Hackert at pages 82:19 to 84:2.

Mountaineer are virtually identical to the Explorer by design because they are Explorers re-badged under different names.[131]

110. All 1991 through 1994 model years of the Explorer were equipped with a Twin-I-Beam front suspension system. All 1995 through 2001 model year Explorers were equipped with a short-long arm or "SLA" front suspension system.[132]

111. Despite changes in the front suspension system, minor steering changes, and modifications that may have been made in the appearance of the Explorer (cosmetic changes) from the 1991 through 2001 model year, the track width and vertical center of gravity height at curb weight of all models of the Explorer (rollover resistance calculation) has remained basically the same through all such model years.[133]

112. The 1991 through 2001 model years of the Explorer – in both two-wheel and four-wheel drive and in both two-door and four-door versions – are common vehicles and substantially similar by design. They all suffer from common inherent design defects and deficiencies from a handling, stability and rollover risk standpoint. The common design defects and deficiencies of all such Explorers create an unreasonable tendency to rollover in foreseeable turning maneuvers and an unreasonable tendency to be uncontrollable in emergency situations. These

131 See Exhibit 39 - Report of Mark Arndt at page 6.
132 *Id*. at page 5.
133 *Id*. at page 5-6.

characteristics of all 1991 through 2001 model year Explorers result from a vertical center of gravity height that is too high given the relatively narrow track width of the vehicle and attributes that allows the vehicle to transition from understeer to oversteer in limit maneuvering conditions as well as during sub-limit events, which leads to both loss of control and subsequent rollovers.[134]

113. These design defects and deficiencies in all 1991 through 2001 model year Explorers are inherent in the vehicle's design and are not the types of defects that are affected by minor variations in the manufacturing process used at different production facilities. Such inherent design defects and deficiencies can only be corrected by design changes.135

114. All 1991 through 2001 Explorers were marketed and sold as passenger car or station wagon replacements and are unreasonably dangerous when used as such because they respond differently from passenger cars and station wagons and do not behave as consumers would reasonably expect from a safe and stable vehicle.[136]

115. With respect to objective knowledge of a rollover problem associated with designs like the Ford Explorer, the following excerpt from a NHTSA safety administration official establishes "objective" evidence of Ford's knowledge that was

134 *Id*. at 6.
135 *Id.*
136 *Id*.

both available to the industry and well-known within the industry during all relevant time periods. Mr., Boehly testified as follows:

> Q. Now, in this particular entry as of 1992, the vehicle rollover is referenced in here as a rollover problem. Do you agree that as of 1992 the manufacturers m this country were aware of the fact that sport utility vehicles had a rollover problem?
> A Again, I can't speak for the vehicle manufacturers. Clearly, anybody who monitored highway safety and highway safety literature, highway safety facts, would recognize that NHTSA had determined there were a number of quote, problems, indicating a sufficient magnitude of injuries and fatalities that were of concern. I would have to believe that the manufacturers were aware of that, but I certainly can't speak for them.[137]

116. Plaintiff's design engineer/expert, Mark Arndt, reviewed Ford internal records and confirmed that relevant design characteristics of the Ford Explorer were derived from the Ford Bronco II, and that the development of the Explorer was intimately tied to the Bronco II. The design carry-over from the Bronco II to the Explorer was significant in terms of overall design, architecture, and componentry. There was clear intermingling of the Bronco II and the development and testing of the Explorer.[138]

137 Deposition of William Boehly (7/11/01) at pages 17:2-15.
138 See Exhibit 39 - Expert Report of Mark Arndt at page 4.

117. Mr. Arndt also served as an expert witness in the Ford Explorer MDL class action litigation related to the design of the Ford Explorer in *Thompson v. Ford*, a case that was tried in Sacramento, CA, that resulted in a settlement prior to verdict. The Thompson litigation including all versions of the Explorer from 1991-2001, including 2- doors and 4-doors, and all versions of the vehicle with both the twin-I-beam suspension and the models after the change to the SLA front suspension, each of the which was judicially determined to be substantially similar by design.[139]

118. Mr. Arndt expressed the opinion that the subject 2000 Ford Explorer poses an unreasonable safety risk to the consuming public and is therefore unreasonably dangerous and defective as designed and marketed.[140]

119. Testing of a safer alternative design demonstrated that it was both feasible and practicable and would have prevented the type of accident involved in this litigation. The safer alternative designs improve rollover resistance, have no impact on functionality, and were both found to be technologically and economically feasible.[141]

2. CRASHWORTHINESS RELATED ISSUES (Restraints and Roof Strength)

139 *Id*.
140 *Id*. at page 14.
141 *Id.* at page 14.

120. The subject Explorer belongs to a class of vehicles, the light truck and sport utility segment, which has been highlighted by safety engineers, prior to 2000, to be more susceptible or prone to rollovers than other types of passenger vehicles, including government statistics reporting that utility vehicles are involved in rollovers 2 ½ to 3 times as frequently as their typical passenger vehicle counterparts.[142]

121. It was equally well-established prior to 2000 that rollover crashes were responsible for a disproportionally large percentage of the serious and fatal injuries occurring on our nation's highways, and represented less than 5% of total accidents, but responsible for approximately one-third of serious and fatal injuries.[143]

122. Prior to 2000, it was well known by Ford, the government, Congress and the auto industry that a rollover problem existed regarding SUVs.[144]

123. This is particularly true for "on-road" rollovers, such as the subject accident, which the NHTSA has described as an "*egregious*" type crash given the relationship such rollovers share with the design.[145]

124. Had the Ford Explorer not rolled over, Mr. Ammerson would not have sustained catastrophic neurological injuries.[146]

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142 Exhibit 42 - Report of Steven Meyer at pages 14-15.
143 *Id*. at page 15.
144 Exhibit 43 - Report of Dr. Sri Kumar at page 18.
145 *Id*. at page 18.
146 *Id*. at page 4.

125. Given that the Explorer rolled over, had the vehicle been designed in a reasonably safe manner from a crash protection or crashworthiness standpoint, Mr. Ammerson would not have sustained spinal injuries and subsequent complications leading to his death, and the enhanced injuries were directly caused by the failure of the Explorer occupant protection system.[147]

126. Mr. Ammerson's neurological quadriplegic spinal injuries were a direct result of the failure of the occupant protection system Ford provided with the design of the Explorer. The excessive roof deformation over his seated area and the safety belt's poor design accounted for the spinal injuries, due to a failure of the survival space and a failure of the occupant injury mitigation system to work appropriately, reasonably, and safely in the crash.[148]

127. The subject Explorer was equipped with frontal airbags, neither of which had deployed, and a sunroof which was in place and intact.[149]

128. The front outboard seats included integrated head restraints with power adjust seat bases and manual recline and lumbar adjustment capability.[150]

Post-accident inspection of the subject Explorer exhibited rollover damage, including

147 *Id*. at page 4.
148 *Id*. at page 5.
149 See Exhibit 42 - Report of Steven Meyer at page 10.
150 *Id*. at page 10.

various cuts in the roof structure consistent with first responder extrication efforts, at both driver and passenger side A-pillars as well as on the driver's side header forward of the B-pillar.[151] The window glazing was found fractured and broken away with the exception of the right rear cargo glass and the sunroof. [152]

129. The front outboard seating positions were equipped with factory mounted conventional 3-point lap and torso belts with a double passthrough, non-cinching latch plates, single retractors mounted in the B-pillars and adjustable D-rings, and end-release buckles anchored to a slider-bar (traveler bar) system. The system was supplied by TRW Vehicle Safety Systems, Inc. ("TRW").[153]

130. The subject safety belt retractor was equipped with a load limiting feature, referred to as a torsion bar, designed to yield and pay out belt webbing during a collision in the event that belt forces exceed a given threshold thus adding webbing length to the shoulder belt. This additional webbing is free to pass from the shoulder belt into the lap belt with the belt's pass-through, non-cinching latch plate.[154]

131. Inspections of the available right front passenger's seatbelt webbing, latch plate and D-ring revealed abrasions and loading consistent with the seat belt

151 *Id*. at page 10.
152 *Id*. at page 11.
153 *Id*. at page 11.
154 *Id*. at page 14.

having been worn and in use at the time of the accident.[155]

132. Ford's own retained seatbelt expert conceded that Mr. Ammerson was belted properly and that physical evidence of use in this crash existed.[156]

133. It has long been recognized that the presence of slack in a seat belt system is not only undesirable, but also dangerous from an occupant protection standpoint, regardless of the accident mode.[157]

134. It has also well-known prior to 2000 that the seat belt, particularly the lap belt portion, is critical in providing rollover occupant protection by limiting occupant excursion and preventing partial or full ejection.[158]

135. The subject Explorer's right front safety belt system, as designed, contains various design features which contribute to, and/or prevent the safety belt from effectively and safely limiting vertical and/or lateral excursion of an occupant during a rollover, including features that reduce the protection level to consumers.[159]

136. Here, an analysis of the B-pillar/D-ring deformation from roof intrusion showed that these design features, and lack of appropriate countermeasure features, generated looseness of at least 2.5" statically, and more dynamically, in the torso belt

155 *Id*. at page 12.
156 Exhibit 44 - Deposition of William Van Arsdell at page 23, lines 7-25.
157 Exhibit 42 - Report of Steven Meyer at page 14.
158 *Id*. at page 15. (citing Attachment 6).
159 *Id.* at page 15.

thus created injury risk due to vertical excursion of the occupant.[160]

137. Ford's choice of the non-cinching latch plate design for Mr. Ammerson's seating position allowed for this torso belt looseness to freely migrate through the latch plate and into the lap belt portion thus placing him at increased risk of severe danger.[161]

138. As of 2000, the date of manufacture of the subject Explorer, Ford was clearly aware of the prevalence of these safety risks associated with rollovers, including the design deficiencies in the safety belt design.[162] By way of example, in a 1996 presentation made to Ford by safety belt supplier TRW regarding occupant protection in rollovers, TRW placed Ford on notice that "*Conventional retractors can, in fact, experience intermittent release of webbing during rollovers*" and recommended that Ford include countermeasures for the safety belt in the Explorer, including pretensioners and belt-integrated seats, to mitigate these design deficiencies.[163] Ford ignored TRW's warnings in the face of mounting rollover accidents involving the Explorer.

139. The benefits of these effective countermeasures were available based on published studies, inside and outside of Ford, for over a decade prior to the year 2000.[164]

160 *Id.* at page 16.
161 *Id.* at page 17.
162 *Id*. at page 17
163 *Id*. at page 17.
164 *Id.* at pages 18-24.

140. Post-accident analysis of the occupant compartment structure and vehicle as designed revealed that Mr. Ammerson began with available head room of 3-4". Head room is the distance between the top of the head and the roof. Static roof crush into Mr. Ammerson's survival space was 8-9". The negative head clearance is thus 5-6" is indicative of the loss of survival space resulting in spinal injury.[165]

141. Mr. Ammerson suffered severe cervical spinal (C6/C7) fractures with spinal cord trauma. See below for a few imaging scans showing the fractures. After surgeries, he was transferred to the Shepherd Spinal Center for comprehensive inpatient rehabilitation resulting from the quadriplegia. After months of rehabilitation, he was discharged to his home where he succumbed to his injuries by pneumonia. An autopsy concluded that the cause of death was acute right lung pneumonia as a result of cervical spine trauma/quadriplegia sustained in the subject rollover crash.[166]

142. There is currently no federal government safety standard that applies to occupant protection in a rollover accident.[167] There is, however, one test, which is a "roof crush resistance" test, found at FMVSS 216. Although not a dynamic test, it does exist as a minimum standard today.[168]

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165 Exhibit 43 - Report of Dr. Sri Kumar at page 14.
166 *Id*. at page 16.
167 Exhibit 45 - Report of Brian Herbst at page 20.
168 *Id*. at page 20.

143. The testimony of Ford engineers proves that FMVSS 216 (roof strength) did not apply to the Ford Explorer when the Explorer was first produced,[169] but that Ford did have an internal mandatory safety requirement that did apply.[170] The internal safety requirement included the FMVSS 216 test procedure,[171] although Ford readily admits that the test is not representative of what a roof in a real-world rollover crash will do.[172]

144. When FMVSS 216 did become mandatory for the Explorer, Ford safety engineering created an internal "safety factor" requirement of 25%, or 1.5 x the maximum weight, plus 25%.[173] In other words, the government minimum requirement was 1.5x, but Ford's own internal "safety requirement" for the Explorer was 1.875 x the maximum unloaded weight.[174] This 25% "safety factor" was based on variability that flowed from manufacturing process, and that "safety factor" was used to ensure that every vehicle would pass the test. The problem was that the Explorer failed to comply with the "safety factor".[175] Instead of the Explorer meeting the "safety factor" of 1.875, the Explorer was deficient at only 1.63, which meant that Ford had to either

169 Exhibit 57 – Deposition of Clarke Cunningham (7/20/00) at page 8:2-5.
170 *Id*. at page 8:6-10.
171 *Id.* at page 11:8-14.
172 *Id*. at page 11:15-17.
173 *Id*. at page 15:18-24 and page 16:3-5.
174 *Id*. at page 22:5-9.
175 *Id*. at page 23:8-15.

redesign the roof or apply to management for a "*Deviation*" or exception from the "safety factor" because compliance was mandatory or the Explorer could not be sold to the public.[176]

145. As a result of the Explorer's failure to meet the "safety factor" in the design process, the Chief Engineer for the Explorer approved the engineers to "*Deviate*" from the non-compliance and sell the Explorer anyway.[177]

146. The purpose of a Ford's "*Deviation*" process in the 1990-2000 time frame was to allow management to either approve non-compliance with safety rules or require a redesign, including documented approval of upper level management of exceptions to Ford's Safety Design Guidelines, new market safety policy, worldwide customer requirements within the company, vehicle design specifications, and/or system design specifications.[178]

147. This "*Deviation*" process at Ford was not uniformly appreciated by the engineers at Ford, as evidenced by a May, 2000, email from Norm Lewicki, a Ford employee with over thirty years of experience, directed to the President and COO of Ford, Jim Padilla, complaining that the decline in quality and safety of Ford products in real world use during the 1990s was directly related to how frequently Ford engineers

176 *Id*. at page 24:14-23.
177 *Id*. at page 18:18-24.
178 Exhibit 58 - Ford document EXPX 0020604 – Ford Deviation Process.

were using the *Deviation* process to bypass the internal rules and design specifications.[179] As Mr. Lewicki described it, these internal rules and specifications were created as a part of the process of creating "red lights" to warn the company that when non-compliances existed, the engineers needed to stop and address the non-compliance rather than "*driving right through the red lights*" with the use of *Deviations*. This, according to Mr. Lewicki's complaint, was the explanation for the decline in quality of Ford products and the resulting recalls and other safety and quality-related issues in the field. As best said by Mr. Lewicki in his email, "*you can't put shi_ into a funnel and expect ice cream to come out*".[180]

148. This *Deviation* process was used for the roof of the Explorer when in 1992, the Explorer roof failed to meet Ford's internal safety requirement. Rather than redesign the roof to meet the safety criteria, Ford management approved a *Deviation* that authorized Ford engineers to side-step the safety rule and sell the Explorer despite its roof non-compliance.[181]

149. Ford continued this *Deviation* for the 1995 model year Explorer (UN105) thus permitting the Explorer to be sold to the public again despite non-compliance with

179 Exhibit 59 – Deposition of Norm Lewicki (5/23/02) at pages 5:2-4; 7:23 to 8:1; 9:1-17; 11:15-25; 12:6-7; 13:3-11; 22:11 to 23:14; and 21:1-18.
180 *Id*. at page 21:1-18.
181 Exhibit 60 – Ford document EXPD 0508 (Deviation 1992).

the safety guidelines.[182]

150. Ford concedes that the 1995 and 2000 model roofs are substantially the same. (ECF Doc. 109-1, page 4 of 24), citing testimony of Plaintiff's expert Brian Herbst at ECF Doc. 101, page 155:3-10. This means all Explorers from 1995 to 2000 were produced to consumers without complying with Ford's own internal safety rules and that Ford upper-level management knew this and approved it.

151. FMVSS 216 (roof crush) only applied to passenger cars prior to 1995. In the 1995 model year, the FMVSS 216 standard was applied to Light Trucks & Vans (LTV's) for the first time, which meant that the roof of the Explorer must have sufficient minimum strength to resist 1.5 times the vehicle's weight when loaded as specified.[183]

152. Ford internal safety rules required that Explorer roof be capable of withstanding 1.875 times weight (versus 1.5 times the weight) of the truck to ensure that any randomly selected vehicle off the assembly line would pass the minimum standard. A so-called 25% safety margin or overload factor.[184]

153. As early as 1992, Ford knew that the roof of the Explorer was incapable of satisfying Ford's criteria. Rather than just redesigning the roof to be safe, Ford management approved the issuance of a "Deviation", which permitted the Explorer to

182 Exhibit 61 – Ford document EXPO 0006 at page 0010.
183 Exhibit 45 - Report of Brian Herbst at page 20.
184 *Id.* at page 23.

be sold despite not meeting the safety "overload" requirement.[185]

154. By the year 2000, Ford engineers were authoring memos referring to the Explorer roof design's "less than desirable safety margin", and that further cost reduction measures had to be carefully evaluated.[186] In fact, the safety margin was so poor in the eyes of some Ford engineers, that physical testing was warranted.[187] In fact, by 1998, the Automotive Safety Office at Ford was having meetings about concerns over the Explorer roof design and performance, and the safety engineers were expressing so much concern about the Explorer that a physical retest, the company's first in history, was discussed.[188]

155. Occupant survival space and designing to ensure that survival space exists for the protection of the occupants in a crash has been a critical part of automotive safety since the 1960s, including at Ford.[189]

156. Other than an addition of a belt beading reinforcement added in the mid-90's to accommodate a slight weight increase in the Explorer due to a larger engine option, the roof structure of the 1991-2001 Explorer is the same basic design, including

185 *Id*. at page 23. See also, Exhibit 52 - Ford Deviation (9/28/92).
186 Exhibit 46 - Deposition of Tim Chen at pages 13-20 and 35-42.
187 *Id*. at pages 29-30.
188 *Id.* at pages 30-42.
189 *Id*. at page 10.

the windshield headers, roof rails, A and B-pillars.[190]

157. The subject vehicle was involved in two previous accidents before the subject rollover occurred. A vehicle inspection revealed no evidence indicating that either of those accidents or associated repairs that were required in any way altered or effected the roof components for purposes of this accident.[191]

158. Both the A and B-pillars buckled near the window line in the subject crash and the front header component showed an upward buckle just inboard of the driver's side comer junction.[192]

159. The roof structure (passenger side) in the subject vehicle intruded into the occupant compartment, compromising the occupant's survival space significantly.[193]

160. In a foreseeable, protectable rollover, such as the subject accident, the structure should withstand the loads applied to the roof without catastrophic deformation, and only deform in a controlled manner without the presence of structural failures and section collapses *i.e.* buckling.[194]

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190 Exhibit 47 - Deposition of Ram Krishnaswami at page 16, line 10 to page 17, line 7.
191 Exhibit 45 - Report of Brian Herbst at page 7.
192 *Id*. at page 7.
193 *Id*. at page 13.
194 *Id*. at page 13.

161. Here, design defects existed in the Explorer's front header, A-pillar design, and B-pillar design thus rendering the Explorer defective.[195]

162. An example of the importance of protecting occupants in rollovers in Volvo's creation of its first SUV, the XC-90, a vehicle that began the design concept process in 1995.[196] Volvo's initial work focused on safety challenges of SUVs and Volvo very quickly identified rollover as a key safety issue.[197] Volvo's next step was the creation of a task force on rollover to investigate the concerns.[198]

163. Very quickly, Volvo's engineers in the Task Force recognized a very clear relationship between rollover as a category and roof deformation issues, which resulted in the creation of Volvo safety requirements for roof deformation in their "book of safety".[199]

164. Given the concerns about SUVs and rollovers, Volvo incorporated actual rollover testing, including FMVSS 208 dolly rollover and SAE J857 rollover testing, as mandatory for the XC-90 safety program in the late 1990s.[200]

165. Volvo also incorporated vehicle "drop testing" as a requirement, a form

195 *Id.* at pages 14-19 and page 44.
196 Exhibit 48 - Deposition of Volvo's Jan Ivarsson (5/5/04) at pages 9-10.
197 *Id*. at pages 11-14.
198 *Id*. at page 16.
199 *Id*. at pages 20-22.
200 *Id*. at pages 38-39.

of dynamic rollover test that required that the roof be designed so that there would be no contact between the test dummy's head and the interior structure.[201]

166. In 1999, Volvo began to work with Ford regarding roof strength because Ford purchased Volvo in the context of the XC-90 development.[202] The conversations between the Volvo engineers and Ford engineers in 1999 focused on structural integrity and FMVSS 216, and soon Ford lawyers joined the dialogue.[203] As part of these meetings, Volvo shared its philosophy on rollover with Ford through presentations.[204] Volvo made it clear to Ford that the injury risk in rollover must address roof compression and impact,[205] and that in order to decrease injury risk in rollover, the design had to decrease deformation and include an effective safety belt system that keeps the occupant in its seat and away from the roof.[206] Ford expressed concerns about Volvo's position on these issues.[207]

167. As for Ford's subjective knowledge of the importance of keeping the roof off of the occupant, by 2000, Ford engineers were requiring as part of test plans that if

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201 *Id*. at pages 39-42.
202 *Id*. at pages 41-42.
203 *Id*. at pages 42-44.
204 *Id*. at pages 49-54. See also, Exhibits 13 and 14 to Ivarsson's deposition (Exhibits 49-50).
205 *Id.* at pages 52-53.
206 *Id*. at pages 53-55.
207 *Id*. at pages 55-56.

the vehicle test involved a ½ turn or more of the steering wheel, roof reinforcements (roll cages) would be required to protect the Ford test drivers from injury from roof deformation.[208] Consumers, of course, were not given that option or the warning that such protective steps were necessary.

168. Ford's assessment of roof strength regarding the 2000 Explorer was based on FMVSS 216 type testing on the prior generation Explorer, UN105.[209] The prior generation Explorer, UN105, actually had a stronger roof because it had different door structures.[210] Nevertheless, the UN105, failed to meet Ford's own internal roof strength standards.[211]

169. The 2000 Ford Explorer has a peak load of 7,007 lbs and an MUVW of 4,600 lbs, therefore the roof strength is 1.52 times the vehicle weight. The calculated cost to double the measured FMVSS 216 roof strength of the 2000 Ford Explorer would be about $25 per vehicle and would add about 25 lbs to the vehicle weight. The calculated cost to triple the measured FMVSS 216 roof strength the 2000 Ford Explorer would be about $45 per vehicle and would add about 45 lbs to the vehicle weight.[212]

ARGUMENT AND CITATION OF AUTHORITIES

208 Exhibit 51 - Ford document FAAE0580245 (2000).
209 Exhibit 45 - Report of Brian Herbst at page 39.
210 *Id*.
211 *Id*. at 24, 39.
212 Exhibit 45 - Report of Brian Herbst at page 24.

D. GEORGIA LAW GOVERNING THE STATUTE OF REPOSE

Georgia law is clear, as this Circuit has recognized.

> [T]he statute does not bar claims filed more than ten years from the first date of sale if the plaintiff is able to adduce evidence sufficient to support a finding that the manufacturer acted with a willful, ***reckless*** or wanton disregard for property or life. Second, the statute of repose does not bar claims for failure to warn, regardless of the date of first purchase.

Watkins v. Ford Motor Co., 190 F.3d 1213, 1216 (11th Cir. 1999) (emphasis added) (quoting O.C.G.A. § 51-1-11(c) (citation and quotation omitted); *see also Chrysler Grp., LLC v. Walden*, 339 Ga. App. 733, 735 (2016) ("The statute of repose excepts certain claims of wanton and reckless conduct from its application and does not apply to failure to warn claims. OCGA § 51-1-11 (c)."), *aff'd.* 303 Ga. 358 (2018). "Where either of these exceptions applies, a plaintiff is authorized to maintain his or her cause of action based on the sale of a defective product notwithstanding the fact that the action is initiated more than ten years from "the date of the first sale." *Chrysler Corp. v. Batten*, 264 Ga. 723, 726, 450 S.E.2d 208, 212 (1994).

In *Chrysler Grp., LLC v. Walden*, the Georgia Court of Appeals provided helpful guidance regarding the definition of reckless conduct in the context of the exception to the statute of repose in O.C.G.A.§ 51-1-11(c). A reckless act is

> an act that is intended by the actor, [although] the actor does not intend to cause the harm which results from it. It is enough that he realize or, from facts which he knows, should realize that there is a strong probability that harm may result, even though he hopes or even expects that his conduct

may prove harmless.

Chrysler Grp., LLC v. Walden, 339 Ga. App. at 737 (citation and alteration omitted). Wanton conduct has been defined as conduct that "is so reckless or so charged with indifference to the consequences as to be the equivalent in spirit to actual intent." *Id.* (quotation omitted). If there is "any evidence" from which a jury could conclude that Ford was ***reckless***, wanton or willful, Ford's motion for summary judgment must be denied. *Id.* at 738.

With respect to claims alleging reckless, wanton or willful disregard for property or life, the plaintiff's burden of proof is a preponderance of the evidence, as opposed to the clear and convincing evidence standard required for punitive damages. *Watkins v. Ford Motor Co.*, 190 F.3d at 1217 n.2.

In a diversity action, a federal court is bound by the decisions of the state's highest court. *Winn-Dixie Stores, Inc. v. Dolgencorp*, *LLC*, 746 F.3d 1008, 1021 (11th Cir. 2014). Where there is no authority from a state's highest court directly addressing an issue, a federal court is "bound to adhere to decisions of the state's intermediate appellate courts absent some persuasive indication that the state's highest court would decide the issue otherwise." *Id.* This Court is bound by the Court of Appeals' decision in *Chrysler Grp., LLC v. Walden* with respect to the exception to the statute of repose in O.C.G.A. § 51-1-11 (c) for reckless conduct. Defendant Ford misstates Georgia law

when it argues, throughout its brief, that Plaintiff must prove that Ford acted with intent or the equivalent of actual intent to injure. [*See* Def's Br., p. 10]. Plaintiffs have to prove only recklessness to avoid their design claims being barred by the statute of repose. *See e.g. Chrysler Grp., LLC v. Walden*, 339 Ga. App. at 737. Defendant Ford's brief does even mention the holding in *Chrysler Grp. V. Walden, LLC* or its explanation of the exception to the statute of repose for reckless conduct.

Ford's arguments that it is entitled to summary judgment on the issue of willful, wanton and reckless conduct because it complied with Federal Motor Vehicle Safety Standards is incorrect. *See Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738 (holding that compliance with Federal Motor Vehicle Safety Standards does not foreclose a finding of willful, wanton, and reckless conduct, but instead is evidence for the jury to consider).

Introducing evidence that the defendant auto manufacturer knew that its design was not as safe as alternative designs, that safer alternative designs were feasible, and that the defendant knew about the hazards associated with the chosen design, is sufficient to create a jury issue regarding willful, wanton, and reckless conduct. *See Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738 (affirming denial of motion for directed verdict and noting that "[t]he plaintiffs . . . introduced other evidence that before this Grand Cherokee was manufactured and sold, Chrysler knew that locating

fuel tanks midship provided safety benefits, that it was possible to locate the fuel tank in the 1999 Grand Cherokee midship, and, most significantly, that Chrysler knew that gas tanks in 1999 Grand Cherokees were vulnerable and would be crushed in rear impacts.").

Ford relies almost entirely on the Eleventh Circuit's decision in *Ivy v. Ford Motor Co.*, 646 F.3d 769 (2011). In *Ivy*, the court noted that the case law in Georgia interpreting the exception to the statute of repose was "sparse." *Id.* at 776. The court then stated that the Plaintiff "acknowledg[ed] that the substantive standard for proving punitive damages is similar" to the exception to the statute of repose in O.C.G.A. § 51-1-11(c). *Id.* at 776. This concession may have amounted to invited error by the plaintiff because the standards are not the same. If a plaintiff meets the standard for punitive damages, the plaintiff necessarily meets the standard for the statute of repose. The opposite is not true. Under Georgia law, reckless conduct, as defined by the Court in *Chrysler Grp., LLC v. Walden*, is not the same standard as the standard for punitive damages. *Compare Chrysler Grp., LLC v. Walden*, 339 Ga. App. at 737 ("It is enough that he realize or, from facts which he knows, should realize that there is a strong probability that harm may result, even though he hopes or even expects that his conduct may prove harmless.") *with* O.C.G.A. § 51-12-5.1 ("Punitive damages may be awarded only in such tort actions in which it is proven by clear and convincing evidence that the

defendant's actions showed willful misconduct, malice, fraud, wantonness, oppression, or that entire want of care which would raise the presumption of conscious indifference to consequences.").

Further, the exception to the statute of repose in O.C.G.A. § 51-1-11(c) requires proof by a preponderance of evidence, whereas punitive damages may not be imposed without clear and convincing evidence. *Compare Watkins v. Ford Motor Co.*, 190 F.3d at 1217 n.2. *with* O.C.G.A. § 51-12-5.1. In *Ivy*, after noting that the plaintiff agreed that the legal standard for punitive damages was similar to the legal standard for an exception to the product liability statute of repose, the court in *Ivy* then noted that the standard for punitive damages, which requires willful and wanton conduct, "is not satisfied where there is a bona fide dispute as to the propriety of the defendant's actions." *Id.* at 776-77.[213] This analysis of whether there is a "bona fide" dispute, which is present in *Ivy* due to the plaintiff's invited error in that case, is the legal framework on which Ford incorrectly relies in its brief. As this Court astutely noted in *Woodard v. Ford Motor Co.*, No.: 1:06-CV-2191-TWT, 2007 U.S.Dist. LEXIS 46159 at *8 (N.D.

213 This is not an accurate statement of Georgia law as to punitive damages, either. There are numerous Georgia cases affirming punitive damages in product liability actions where the defendant introduced evidence sufficient to create a dispute as to the propriety of the defendant's actions. *See e.g. General Motors Corp. v. Moseley,* 213 Ga. App. 875, 884-85 (1994) (notwithstanding defendant's compliance with federal regulation, award of punitive damages was appropriate because defendant did not implement safety modifications for economic reasons).

Ga. Jun. 25, 2007), "[e]ven though Ford is correct to say that punitive damages cases may be persuasive in this context since both refer to language such as 'wanton' and 'reckless,' the analogy only works in one direction. Cases finding that defendants were reckless under the higher punitive damages standard are persuasive as to the issue of whether that conduct meets the lower preponderance of the evidence standard."

1. Handling and Stability Claims

Ford's reliance on *Ivy v. Ford Motor Co.*, 646 F.3d 769 (11th Cir. 2011), is misplaced for several reasons. First, as noted above, the plaintiff in *Ivy* may have invited error by conceding, incorrectly, that the substantive standard for the exception to the statute of repose is similar to the standard for punitive damages. *See Ivy,* 646 F.3d at 776. Second, it is not clear what evidence the plaintiff in *Ivy* introduced when compared with the extensive evidence relied upon by Plaintiffs in this case. Third, based on *Chrysler Grp., LLC v. Walden*, *Ivy* does not accurately apply Georgia law because of the weight that it gave to the Ford's alleged compliance with its own internal design requirements, a Consumer's Union Test, and a Consumer Reports recommendation for the 1990 Explorer. *Compare Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738 (holding that compliance with Federal Motor Vehicle Safety Standards does not foreclose a finding of willful, wanton, and reckless conduct, but instead is evidence for the jury to consider) *with Ivy*, 646 F.3d at 773 ("We do not think that a reasonable trier

of fact could find that Ford exhibited willful and wanton conduct when the vehicle in question, a second generation Ford Explorer, performed safely according to reputable mainstream sources."); *see also Williams v. Taser Int'l, Inc.*, No. 1:06-CV-0051-RWS, 2006 U.S. Dist. LEXIS 118659, at *14 (N.D. Ga. Oct. 10, 2006) (Story, J.) (*quoting Jones v. NordicTrack, Inc.*, 274 Ga. 115, 118 (2001) ("At the 'heart' of a design-defect case, however, is the reasonableness of selecting from among alternative product designs and adopting the safest feasible one.").

Defendant Ford's statement that the 2000 Explorer was different from earlier models regarding stability and handling is not correct. The track width and vertical center of gravity height (rollover resistance calculation) remained essentially the same from model year 1991 through model year 2001.[214]

Ford Knew about the Benefits of Alternative Designs

During testing of the Ford Explorer, Ford used a Chevy Blazer as a benchmark. The Chevy Blazer passed the Ford testing without rollover, while the Explorer "had problems."[215] Representatives of Firestone warned Ford that the Explorer had "bad oversteer," was "not safe at highway speeds in the hands of an average driver," and

214 Exhibit 39-Report of Mark Arndt at page 6.
215 Exhibit 33-EXPV 69

must be regarded as a safety defect.[216] Ford took steps to actively conceal from the public its knowledge regarding the Explorer's handling and stability defects by sending a memo to Firestone instructing them to stop putting computer test results in writing.[217]

Ford Knew that Alternative Designs were Feasible

Ford knew that it could increase the track width of the Explorer to reduce or eliminate the Ford Explorer's bad handling characteristics that made it prone to rollover.[218] Ford knew that the stability characteristics of the Chevy Blazer, for example, made it less prone to rollover. [219] Because of this, during the development of the Explorer, Ford engineers proposed four changes to assist in curing the Explorer's wheel lift problem and achieve performance equivalent to the Chevy Blazer.[220] Ford adopted two of the changes, with the remainder to be adopted in subsequent years; however, Ford never adopted to other proposed changes.[221] The decision not to adopt all of the proposed changes was to reduce the cost associated with the Explorer.[222] Ford knew that an alternative design, with a wider track and a lower center of gravity height.

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216 Exhibit 34-BMD; Oversteer is a recognized undesirable characteristic be illustrated by a design that spins out.
217 Exhibit 35-Ford document FMC 183 (1990)
218 Exhibit 54-Deposition of Fred Drotar at page 24:12-16.
219 Exhibit 18-Depostion of Don Tandy at page 22.
220 *Id*. at page 33, line 11 to page 35, line 15 and page 47 line 10 page 59, line 25.
221 *Id.* at pages 50, line 7 to 51, line 9
222 *Id.* at pages 49, lines 23-25;

Ford began planning changes to the design of the Explorer to improve its stability after it was launched by lowering the engine to lower the center of gravity.[223] However, Ford declined to do this due to program costs.[224] As a result, the 1995-2001 model Explorers were no more stable than the original models and, in fact, those models have been documented as slightly worse.[225]

Ford Knew About the Particular Dangers of the Chosen Design

In addition to the facts stated above, Ford knew that the chosen design included design problems that were "fundamental package constraints" and the "high roll center" reduced the effectiveness of roll control devices and that the Explorer would "likely" get poor results in consumer safety testing.[226] Ford engineers have testified that: (1) "a propensity to rollover" must be reduced to a minimum"[227]; (2) a vehicle is unsafe if it shows a tendency to roll over on flat, level pavement in turning maneuvers[228]; and (3) a "reasonably safe" vehicle should be designed so the wheels do not lift off the paved roadway in limit maneuvers typical of accident avoidance situations in the real world.[229]

The Ford Explorers made from 1991 through 2001 model year, including the

223 Exhibit 39-Report of Mark Arndt at page 5.
224 *Id.*
225 *Id.*
226 Exhibit 26-Ford document EXPU
227 Exhibit 54-Deposition of Fred Drotar at pages 140:18 to 141:5.
228 Exhibit 55-Deposition of David Bickerstaff at page 106: 7-17
229 *Id.* at pages 106 and 109-110.

subject Explorer, had these dangerous characteristics that were known to Ford[230], and which occurred in this case.

Based on the evidence above regarding Ford's decision not to improve the stability and rollover resistance of the Explorer for financial reasons, Plaintiff has come forward with compelling evidence showing that "Ford made profit a priority over the safety of the consumer." Such evidence has supported findings of a reckless disregard for property or life." *Watkins*, 190 F.3d at 1217. As noted in *Watkins*, this supports not only a denial of summary judgment with respect to the statute of repose, but also a denial of summary judgment as to punitive damages.

Second, in *Woodard v. Ford Motor Co.*, No. 1:06-CV-2191-TWT, 2007 U.S. Dist. LEXIS 46159, at *6 (N.D. Ga. June 22, 2007), this Court denied Ford's motion for summary judgment based on the statute of repose because "[p]laintiffs [] created a genuine issue for the jury to decide whether Ford's economic decision to put profits ahead of the lives of its consumers, despite the fact that it complied with a federal regulation, constituted reckless disregard." *Woodard.*, No. 1:06-CV-2191-TWT, 2007 U.S. Dist. LEXIS 46159, at *9. In that case, like this one, the plaintiffs' expert documented Ford's savings in foregoing a safer design, Ford's decision to pre-charge its customer's in anticipation of product liability lawsuits, and Ford's violations of its

230 Exhibit 30-Firestone document [12/89] at pages 2-3

own stability standards. *Id.* at * 6-7. Similar to this case, the plaintiff's expert in *Woodard* "detail[ed] a number of structural changes that Ford chose to forego in order to maximize its profit -- even though it was aware that the changes were feasible and would promote consumer safety." *Id.* at *6.

Third, as set forth above, Plaintiffs have easily met the standard to avoid the statute of repose as set forth in the more recent case of *Chrysler Grp., LLC v. Walden*, 339 Ga. App. 733. Plaintiffs have come forward with evidence that Ford knew about the safety benefits of an alternative design, an alternative design was feasible, and Ford knew about the hazards posed by its chosen design.

2. <u>Roof Design Claims</u>

When the Ford Explorer first entered production, the "roof crush" standard, FMVSS 216, did not apply to the Ford Explorer or similar vehicles.[231] Although Ford agrees the test does not represent what a roof will do in a rollover crash, it provides a minimum standard.[232]

The FMVSS standard requires a strength to weight ratio of 1.5.[233] Ford's internal standard for its vehicles required 1.5 times the maximum weight, plus 25%, or 1.875.[234]

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231 Exhibit 45-Report of Brian Herbst at page 20
232 Exhibit 57-Deposition of Clarke Cunningham (7/20/00) at page 8:2-5
233 *Id*. at page 15:18-24 and page 16:3-5; Exhibit 45-Herbst Report at page 22.
234 Exhibit 57-Deposition of Clarke Cunningham at page 24:14-23

By no later than 1992, Ford knew that the Explorer would not meet Ford's own internal safety standard of 1.87. Instead of redesigning the roof, Ford management approved a "Deviation," which allowed the Explorer to be sold even though it did not meet Ford's own standard.[235]

In 1995, the FMVSS 216 standard was applied to light trucks and vans, including the Explorer, which meant that the Explorer had to resist 1.5 times its weight when loaded as specified by the test.[236] Ford never even conducted dynamic stability testing for determining roof strength or performance in a rollover accident on a production or prototype 2000 Ford Explorer or its equivalents. Ford's assessment of roof strength regarding the 2000 Explorer was based on FMVSS 216 type testing on the prior generation Explorer, UN105.[237] The prior generation Explorer, UN105, actually *had a stronger roof* because it had different door structures.[238] Nevertheless, the UN105, failed to meet Ford's own internal roof strength standards.[239] Ford passed the UN105 into production by lowering its own internal standard so the Explorer would meet it.[240] In fact, as changes were made to the Explorer in 1995, 1996.5, and 1998, its roof crush

235 Exhibit 45-Report of Brian Herbst at page 23; Exhibit 52-Ford Deviation (9/28/92)
236 Exhibit 45-Report of Brian Herbst at page 20
237 *Id.* at page 39.
238 *Id.*
239 [Herbst Report, pp. 24, 39].
240 [Herbst Report, pp. 24, 39].

resistance *decreased*. **Instead of taking steps to strengthen the roof, Ford instead lowered its own internal roof strength standard for only the Explorer.**[241] The deviation process had been used by Ford to pass the Explorer even though it failed Ford's internal standards in 1992 and again in 1995.[242]

The decreasing roof strength of the Ford Explorer and corresponding deviations are set forth on page 26 of the report of Brian Herbst.[243] The 1991-1994 Explorer failed to meet Ford's internal standard and was given a deviation for its FMVSS 216 test result of 1.72. The 1995-1996.5 Explorer failed to meet Ford's internal standard and was given a deviation for its FMVSS 216 test result of 1.68. The 1996.5-1997 Explorer failed to meet Ford's internal standard and was given a deviation for its FMVSS 216 test result of 1.67.

In 1999, a Ford FMVSS 216 test of the UN150 Explorer yielded a roof strength of only 1.48 times the vehicle weight.[244] The Federal Motor Vehicle Safety Standard required at least 1.5. This was prior to the sale of the vehicle at issue in this case. Instead of taking steps to strengthen the roof, Ford reduced the listed weight of the Explorer.[245]

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241 [Herbst Report, p. 24].
242 Exhibit 45-Report of Brian Herbst at page 23; Exhibit 52-Ford Deviation (9/28/92)
243 *Id.* at page 26.
244 *Id.* at page 24.
245 *Id.* at page 24-25.

This resulted in a score of 1.51. Then, Ford retested the Explorer and got a 1.53. Ford averaged the two results for a rating of 1.52. Disturbingly, Ford then disregarded this result and continued to certify the 1998-2001 Explorer as having a rating of 1.63.[246]

The cost estimate to triple the roof strength of the 2000 Ford Explorer is only forty-five dollars ($45.00). It would cost only twenty-five dollars ($25.00) to double the strength of the roof.[247] There were numerous methods available to greatly improve the strength of the Explorer's roof when it was manufactured, including replacing low strength steel with high-strength steel, increasing section size, eliminating holes, improving component integration, implementing internal reinforcements, including tubular steel reinforcements, implementing external reinforcements such as stiffening ribs or doublers, and reinforcing component voids with structural foam.[248] These roof strength improvements do not affect utility, functionality, or even visual appearance.[249]

In May 2000, prior to the sale of the subject Explorer, Norm Lewicki, a Ford employee with over thirty years of experience, sent an email to the President and COO of Ford, Jim Padilla, informing him that the safety deficiencies that arose during the 1990s were due to the frequency with which Ford engineers used the deviation process

246 *Id.* at page 24-25
247 *Id.* at page 39.
248 *Id.* at page 33-34.
249 *Id.* at 37.

to bypass internal rules and design requirements.[250]

By 1999, Ford had acquired Volvo. Volvo made clear to Ford that the injury risk in rollover accidents must address roof compression and impact to decrease injuries, and the design of the vehicle had to decrease roof deformation and include effective safety belt systems to keep and occupant in the seat and away from the roof.[251] Ford was concerned about Volvo's position on these issues.[252] Further, by 2000, in all testing involving a half turn or more of the steering wheel, Ford engineers required roof reinforcements to protect Ford test drivers from injury from roof deformation.[253]

Based on the evidence, Ford (1) knew that its design was not as safe as alternative designs, (2) that safer alternative designs were feasible utilizing basic engineering available at the time, and (3) Ford knew about the hazards associated with the chosen design. *See Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738. Instead of improving the Explorer's roof strength, Ford continuously lowered its own roof strength standard for the Explorer during the years leading up to the production of the subject Explorer. Further, there is some evidence that the Explorer at issue ***may not have even met federal minimum roof strength standards***. At a minimum, the foregoing facts would allow a

250 Exhibit 59-Deposition of Norm Lewicki at pages 5:2-4; 7:23 to 8:1; 9:1-17; 11:15-25; 12:6-7; 13:3-11; 22:11 to 23:14; and 21:1-18.
251 Exhibit 48-Deposition of Jan Ivarsson (5/5/04) at 52-55.
252 *Id.* at pages 55-56
253 Exhibit 51-Ford document FAAE0580245 (2000).

jury to find by a preponderance of evidence that Ford "realize[d] or, . . . should [have] realize[d] that there is a strong probability that harm may result," . . . "even [if it] expect[ed] that [its] conduct may prove harmless. *Id.* at 737.

3. Restraints Design Claims

Defendant Ford argues that the restraints system in the Explorer "met or exceeded all applicable FMVSS and Ford internal standards." [Ford Br., p. 15]. Ford argues that the restraint systems passed FMVSS standards. [*Id.*]. Further, Ford argues that it "conducted its own internal testing to consider the inclusion of pretensioners in its restraint systems" and "determined that inclusion of a pretensioner did not provide any additional injury benefit." [*Id.*]. Based on this, Defendant Ford argues that there is a bonafide dispute regarding the restraint system and, therefore, Plaintiff cannot prove that Ford was willful, reckless or wanton. [*Id.*].

Ford misstates the applicable standard for willful, wanton and reckless conduct, which is set forth in *Chrysler Grp., LLC v. Walden*. Under Georgia law, summary judgment must be denied if there is any evidence that Defendant Ford (1) knew that its design was not as safe as alternative designs, (2) that safer alternative designs were feasible, and (3) Ford knew about the hazards associated with the chosen design. *See Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738.

Ford's argument that it met federal standards and its own internal standards, even

if undisputed, is not sufficient to find that a reasonable jury could not conclude that Ford was willful, wanton, or ***reckless***. *Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738 (holding that compliance with Federal Motor Vehicle Safety Standards does not foreclose a finding of willful, wanton, and reckless conduct, but instead is evidence for the jury to consider). In holding that a jury was authorized to find that an auto maker was reckless in designing a vehicle, the Court of Appeals noted that "a manufacturer's proof of compliance with industry-wide practices, state of the art, or federal regulations does not eliminate conclusively its liability for its design of allegedly defective products." *Id.* (alternation omitted) *quoting Banks v. ICI Americas,* 264 Ga. 732, 736 (1), n. 6 (1994); *see also Woodard*, No. 1:06-CV-2191-TWT, 2007 U.S. Dist. LEXIS 46159, at *8-9 (explaining several reasons why "courts should be hesitant to treat compliance with a federal regulation as a dispositive reason to rule that the defendant's conduct is not "reckless" as a matter of law.").[254]

254 Plaintiff is not making a manufacturing defect claim. Therefore, the fact that the Subject Vehicle met Ford's internal design requirements is not relevant. The essence of a design defect claim is that the manufacture's design and design standards were inadequate. *See Banks v. Ici Ams.*, 264 Ga. 732, 734 (1994) (explaining that a design defect is a "conclusion that a product's design specifications were partly or totally defective."). *Williams*, No. 1:06-CV-0051-RWS, 2006 U.S. Dist. LEXIS 118659, at *14 (*quoting Jones v. NordicTrack, Inc*., 274 Ga. 115, 118 (2001) ("At the 'heart' of a design-defect case, however, is the reasonableness of selecting from among alternative product designs and adopting the safest feasible one."). Of course, it is relevant to Plaintiff's design defect claim that Ford continuously lowered its own internal roof crush standard through deviations—just for the Explorer-because the

The evidence in support of denying Ford's motion for summary judgment with respect to Plaintiffs' restraint design claims is overwhelming. The safety belt at issue in this case was manufactured by TRW.[255] The belt lacked a non-cinching latch plate design for Mr. Ammerson's seating position, which allowed Mr. Ammerson's torso belt to freely migrate through the latch plate and into the lap belt portion of the belt.[256] As of 2000, Ford was aware of the prevalence of the deficiencies in the safety belt during a rollover.[257] In 1996, TRW placed Ford on notice that "Conventional retractors can, in fact, experience intermittent release of webbing during rollovers" and recommended that Ford include pretensions and belt integrated seats to mitigate the design deficiency.[258] The benefits of the alternative design recommended by TRW were based on published studies from both inside and outside of Ford, which had been in existence for a decade prior to 2000.[259] Ford ignored the warnings despite mounting incidents of Ford Explorer rollovers.

Based on these facts, Plaintiffs have easily come forward with evidence that will allow a jury to find by a preponderance that Ford: (1) knew about the benefits of an

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Explorer could not meet Ford's own internal standard.

255 Exhibit 42-Report of Seven Meyer at page 11.

256 *Id.* at page 17

257 *Id.*

258 *Id.*

259 *Id.* at page 18-24

alternative design; (2) the alternative design was feasible: and (3) Ford knew about the hazards posed by the design that Ford utilized. *See Chrysler Grp., LLC v. Walden,* 339 Ga. App. at 738 (affirming denial of motion for directed verdict and noting that "[t]he plaintiffs . . . introduced other evidence that before this Grand Cherokee was manufactured and sold, Chrysler knew that locating fuel tanks midship provided safety benefits, that it was possible to locate the fuel tank in the 1999 Grand Cherokee midship, and, most significantly, that Chrysler knew that gas tanks in 1999 Grand Cherokees were vulnerable and would be crushed in rear impacts."). Ford, at the absolute minimum "realize[d] or, . . . should [have] realize[d] that there is a strong probability that harm may result," . . . "even [if it] expect[ed] that [its] conduct may prove harmless. *Id.* at 737.

E. PUNITIVE DAMAGES CLAIM

Ford's motion contends that summary judgment is appropriate as to punitive damages because (a) the design met applicable government minimum standards; and (b) are supported by an abundance of testing, and (c) were in line with industry standards at the time of the Explorer's manufacture. As will be demonstrated, Ford's motion is without merit because Plaintiffs have submitted evidence showing that a jury could find there is clear and convincing evidence that Ford's actions show willful,

wanton misconduct and that entire want of care rose to the presumption of conscious indifferences to consequences.

APPLICABLE LEGAL STANDARDS FOR PUNITIVE DAMAGES

1. **COMPLIANCE WITH GOVERNMENT/INDUSTRY STANDARDS**

Punitive damages may be awarded in tort actions under Georgia law where the evidence proved by clear and convincing evidence that the defendant's actions showed willful misconduct, malice, fraud, wantonness, oppression, or that entire want of care which would raise the presumption of conscious indifference to consequences. O.C.G.A. § 51-12-5.1(b). Just as proof of compliance with industry-wide practices or governmental safety regulations does not bar a defect claim in Georgia,[260] neither does it bar punitive damages for the willful, wanton actions of a defendant.

Although Georgia law has generally held that punitive damages are not appropriate in cases where a manufacturer complies with regulatory standards; it is not a bright line rule, "particularly where the manufacturer's conduct shows some wanton or otherwise culpable behavior." *Mascarenas v. Cooper Tire & Rubber Co.,* 643 F. Supp. 2d 1363, 1374 (S.D. Ga. 2009). Other courts have ruled in similar fashion. "For

260 *Doyle v. Volkswagenwerk Aktiengesellschaft*, 267 Ga. 574, 577, 481 S.E.2d 518, 521 (1997).

instance, a punitive damages award against General Motors was upheld despite its compliance with safety standards because there was evidence that it had rejected safer designs for the fuel tanks on its full-sized pickup trucks 'because of economic considerations.'" *General Motors Corp. v. Moseley*, 213 Ga.App. 875, 884–85, 447 S.E.2d 302 (1994), abrogated on other grounds by *Webster v. Boyett*, 269 Ga. 191, 196, 496 S.E.2d 459 (1998). Likewise, a tire manufacturer's motion for summary judgment on a punitive damages claim was denied because, even though it complied with the relevant federal safety standards, there was evidence it knew of separation defects with its tires' treads, had "refused to implement simple, relatively inexpensive solutions" because of profit margin concerns, and other tire manufacturers had adopted the safer designs. *Mascarenas v. Cooper Tire & Rubber Co.*, 643 F.Supp.2d 1363, 1374 (S.D.Ga. 2009). The Georgia Court of Appeals has also indicated, in dicta, that "evidence that the manufacturer engaged in a deliberate course of conduct which knowingly endangered those using the product" would be sufficient to overcome the rule. *Uniroyal Goodrich Tire Co. v. Ford*, 218 Ga.App. 248, 254–55, 461 S.E.2d 877 (1995), rev'd in part on other grounds by *Ford v. Uniroyal Goodrich Tire Co.*, 267 Ga. 226, 476 S.E.2d 565 (1996)."[261]

261 *See Hernandez v. Crown Equip. Corp.*, 92 F. Supp. 3d 1325, 1355–56 (M.D. Ga. 2015).

In *Mascarenas,* plaintiffs alleged that Cooper Tire knew that it was placing its customers in substantial risk of harm. Plaintiffs presented some evidence that Cooper had knowledge of a defect that caused tread-belt separations yet failed to incorporate any changes to the design. Plaintiffs' expert in that case testified that if one of the four identified safety measures had been implemented that the fatality probably would not have occurred.[262] Despite Cooper meeting federal safety standards, the court held:

> In short, Plaintiffs have pointed to evidence that Cooper knew that each of these design features prevented tread separations, but that Cooper decided against such changes because they cut into Cooper's profit margin. Cooper's motion for summary judgment as to Plaintiffs' claim for punitive damages is rejected at this time. *Woodard v. Ford Motor Co.,* 1:06–CV–2191–TWT, 2007 WL 4125519 at *4 (N.D.Ga. Nov. 2, 2007). (Emphasis added) *Id.* at 1374.

Despite Ford's argument to the contrary, clearly adhering to a standard does not bar Plaintiff's claim for punitive damages as a matter of law. The case law also illustrates that expert testimony is in fact evidence that the Court can and should consider.

2. DISCUSSION

Plaintiff has presented evidence that the subject Explorer belongs to a class of vehicles, the light truck and sport utility segment, which has been highlighted by safety engineers, prior to 2000, to be more susceptible or prone to rollovers than other types

262 *Id.*

of passenger vehicles, including government statistics reporting that utility vehicles are involved in rollovers 2 ½ to 3 times as frequently as their typical passenger vehicle counterparts (See ¶116 of Factual presentation)[263], and that prior to 2000, rollover crashes were responsible for a disproportionally large percentage of the serious and fatal injuries occurring on our nation's highways, representing less than 5% of total accidents, but responsible for approximately one-third of serious and fatal injuries. (See ¶117 of Factual presentation)[264]

The evidence also shows that prior to 2000, it was well known by Ford, the government, Congress and the auto industry that a rollover problem existed regarding SUVs, (See ¶118 of Factual presentation)[265] including the Explorer design, and that this was particularly true for "on-road" rollovers, such as the subject accident, which the NHTSA has described as an "*egregious*" type crash given the relationship such rollovers share with the design. (See ¶119 of Factual presentation)[266]

The evidence likewise demonstrates that had the subject Explorer been designed in a reasonably safe manner from a crash protection or crashworthiness standpoint, Mr. Ammerson would not have sustained spinal injuries and subsequent complications

263 See Exhibit 39 - Expert Report of Mark Arndt at page 4.
264 *Id*.
265 *Id*. at 14.
266 *Id*.

leading to his death, and the enhanced injuries were directly caused by the failure of the Explorer occupant protection system and propensity to rollover. (See ¶121-122 of Factual presentation)[267]

a. **CRASHWORTHINESS RELATED ISSUES (Restraints and Roof Strength)**

Plaintiff has presented evidence that as of 2000, the date of manufacture of the subject Explorer, Ford was clearly aware of the prevalence of these safety risks associated with rollovers, including the design deficiencies in the safety belt design. (See ¶134 of Factual presentation)[268] Specifically, in a 1996 presentation made to Ford by safety belt supplier TRW – the very maker of the subject safety belt -- regarding occupant protection in rollovers, TRW placed Ford on notice that "*Conventional retractors can, in fact, experience intermittent release of webbing during rollovers*" and recommended that Ford include countermeasures for the safety belt in the Explorer, including pretensioners and belt-integrated seats, to mitigate these design deficiencies, all of which Ford ignored for four years prior to the subject accident. (See ¶134 of Factual presentation)[269] The benefits of these effective countermeasures were available

267 Exhibit 42 - Report of Steven Meyer at page 14, Exhibit 43 - Report of Dr. Sri Kumar at page 18.
268 Exhibit 42 - Report of Steven Meyer at page 15, (citing Attachment 6).
269 *Id.*

based on published studies, inside and outside of Ford, for over a decade prior to the year 2000. (See ¶135 of Factual presentation)[270]

Ford's own retained seatbelt expert conceded that Mr. Ammerson was belted properly and that physical evidence of use in this crash existed. (See ¶128 of Factual presentation) After the accident, available evidence showed Mr. Ammerson began with available head room of 3-4". Head room is the distance between the top of the head and the roof. Static roof crush into Mr. Ammerson's survival space was 8-9". The negative head clearance is thus 5-6" is indicative of the loss of survival space resulting in spinal injury, which can be accounted for both by unsafe restraint motion and structural deformation. (See ¶136 of Factual presentation)[271]

In the face of the foregoing, Ford argues that Plaintiff has failed to prove that Ford's conduct in designing the Explorer safety belt system rose to the level of willfulness as required for punitive damages. Ford simply chooses to ignore the evidence of Ford's knowledge of dangers inherent in the conventional safety belt design it chose to provide Mr. Ammerson. Plaintiff has submitted evidence that Ford knew, at least four years before the 2000 model was manufactured, of the design dangers in the safety belt during rollovers. Not only did TRW – the supplier – warn Ford of this design

270 *Id.*
271 *Id.* at page 16.

danger, but it made actual recommendations to Ford of safer countermeasures that would have mitigated and precluded Mr. Ammerson's injuries from occurring. By way of example, in a 1996 presentation made to Ford by safety belt supplier TRW regarding occupant protection in rollovers, TRW placed Ford on notice that "Conventional retractors can, in fact, experience intermittent release of webbing during rollovers" and recommended that Ford include countermeasures for the safety belt in the Explorer, including pretensioners and belt-integrated seats, to mitigate these design deficiencies. Ford ignored TRW's warnings in the face of mounting rollover accidents involving the Explorer. (See ¶ 138 of Factual presentation)[272] Despite this knowledge, the subject vehicle contained a conventional retractor.

As stated above, static roof crush intruded into Mr. Ammerson's survival space 8-9 inches. Although no federal government safety standard applies to occupant protection in a rollover accident, there is one test, which is a "roof crush resistance" test, found at FMVSS 216. Although not a dynamic test, it does exist as a minimum standard today. (See ¶138 of Factual presentation)[273] While this standard was not a requirement at the time the Explorer was developed, Ford did have an internal safety standard that included FMVSS 216. Ford's internal safety standard was 25%, or 1.5x the maximum weight

272 *Id.* at page 17.
273 *Id.*

plus an additional 25%. Adding this cushion to account for variability in the manufacturing would theoretically ensure that all vehicles would pass the test. (See ¶144 of Factual presentation)[274] The Explorer failed the internal standard forcing Ford to choose between redesigning the roof or seeking a "Deviation" from the safety standard to allow the Explorer to be sold with the despite deficient roof strength. Ford chose the latter. (See ¶144-154 of Factual presentation)[275] A Deviation was issued for the Explorer's roof in 1992, and again in 1995. Ford concedes that the model year 2000 had essentially the same roof as the 1995 model. This means all Explorers from 1995 to 2000 were produced to consumers without complying with Ford's own internal safety rules and that Ford upper-level management knew this and approved it. (See ¶148-150 of Factual presentation)[276] The 2000 Ford Explorer has a peak load of 7,007 lbs. and an MUVW of 4,600 lbs, therefore the roof strength is 1.52 times the vehicle weight. The calculated cost to double the measured FMVSS 216 roof strength of the 2000 Ford Explorer would be only $25 per vehicle and would add about 25 lbs to the vehicle weight. The calculated cost to triple the measured FMVSS 216 roof strength

274 Exhibit 57 – Deposition of Clarke Cunningham (7/20/00) at pages 15:18-24, 16:3-5, 22:5-9, 23:8-15, 24:14-23, and 18:18-24.
275 *Id.* at page 18:18-24.
276 Exhibit 60 – Ford document EXPD 0508 (Deviation 1992); Exhibit 61 – Ford document EXPO 0006 at page 0010; (ECF Doc. 109-1, page 4 of 24), citing testimony of Plaintiff's expert Brian Herbst at ECF Doc. 101, page 155:3-10.

the 2000 Ford Explorer would be only $45 per vehicle and would add about 45 lbs to the vehicle weight. (See ¶168 of Factual presentation)[277] Undoubtedly yet another decision by Ford to pass a known risk to consumers in order to avoid the expense of implementing a safer design.

b. **HANDLING AND STABILITY**

The Explorer was derived from the Bronco II, a vehicle known to Ford to have a dangerous tendency to rollover in ordinary accident avoidance maneuvers. (See ¶44-45 of Factual Presentation)[278] Despite this knowledge, the Bronco II and the Explorer were fundamentally the same design in regards to geometric configuration and rollover. (See ¶46, 67 of Factual presentation)[279] Ford engineers knew, as early as 1987, that the Explorer had a Static Stability Factor ("SSF"), or rollover resistance, worse than that of the Bronco II. This caused engineers to recommend that Ford increase the Explorer's track width, lower the height of the vertical center of gravity, and use smaller tires, called P215/75R15 tires. Although implemented by management, the Explorer still had a wheel lift problem so Ford's engineers recommended deflating the tires from 35 to 26

277 Exhibit 45 - Report of Brian Herbst at pages 24 and 39.
278 Exhibit 12 - *Ford v. Ammerman*,705 N.E.2d 539, 545-547 (Ind. 1999); Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008).
279 Exhibit 07 – Affidavit of Mark Arndt; Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008); Exhibit 25 - Deposition of Jerry Sloan at pages 66:13, 76:17-77:10.

psi to make the tires more sluggish and keep the wheels on the ground during testing. (See ¶49-50 of Factual Presentation)[280]

Following a public humiliation of the Bronco II when it tipped up at testing conducted by the Consumers Union, Ford ordered their engineers to conduct rollover testing on the Explorer and compare it to the Bronco II and Chevrolet S10 Blazer. Not surprisingly the Explorer tested equally as poorly as the Bronco II; yet the Blazer did not tip up during the evaluation. Ford's own employee testified to this fact during a deposition taken in 2000. (See ¶50-52 of Factual Presentation)[281] Subsequent to the testing, Ford's engineers recommended four design changes to improve the wheel lift problem and get the Explorer to perform comparable to the S10 Blazer. Ford consciously chose only to implement two of those recommendations due to the costs of delay and costs of the improvements themselves. (See ¶53-55, 69 of Factual Presentation)[282] Ford's internal documents reveal a company "subjectively" aware of the risks posed by the final design of the Explorer and that a "conscious" decision to

280 Exhibit 15 Ford document EXP4 213-21; Exhibit 17 - Deposition of Ford engineer Roger Simpson (11/3/00) at pages 156-57, 159-60.
281 Exhibit 17 - Deposition of Ford engineer Roger Simpson (11/3/00) at pages 156-57, 159-60; Exhibit 18 – Deposition of Don Tandy (3/3/00), at page 23, lines 17-23.
282 Exhibit 18 – Deposition of Don Tandy (3/3/00), pages 33, line 11 to page 35, line 15, page 50, line 7 to 51, line 9, page 49, lines 23-25; Exhibit 26 – Ford document EXPU 8308.

accept the risk to consumers telling their own engineers, "management is aware of the risks and have accepted the risk". (See ¶56 of Factual Presentation)[283]

Contrary to its own internal, decades-old standards, the evidence from Ford's own files demonstrates that long before the 2000 model Explorer was sold, Ford's engineers had actual knowledge that the Explorer's design was unstable and prone to rolling over in emergency maneuvers due to its high center of gravity and narrow track width, and that Ford had known for decades the importance of vehicle stability in emergency maneuvers, and knew that on flat, dry pavement, such as here, a car or truck should slide out, rather than roll. (See ¶66 of Factual Presentation)[284]

As further proof of Ford's knowledge, in April 1989, a year before the Explorer was first sold the public, Ford executives objected to and tried to stop the release of a damaging Consumer Reports article on Bronco II instability. Regarding these efforts, Jerry L. Sloan of Ford's public affairs office wrote:

> We think going in we were in deep trouble regarding our rollover rates. . . Our rollover rate is three times higher than the Chevy S-10 Blazer. . . . [T]he [Fatality Analysis Reporting System (FARS)] data put us in a bad light. . . We think, however, that we have clouded their minds. . . ."

283 Exhibit 19 – Ford document EXPI 619-24.
284 Exhibit 13 - *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107, 1124-27 (Cal. Ct. App. 2008).

Rather than making design improvements in stability for the Explorer, Ford used the Bronco II platform, as evidenced by the fact that the Explorer had almost the exact same track width, high engine mount and elevated center of gravity as the Bronco II, which caused the same instability problems. Additionally, over one-half of the parts for the four-door and 80% for the two-door Explorer were carried over from the Bronco II. (See ¶66-67 of Factual Presentation)[285] In addition to the already known instability problems, Ford's engineers learned that the suspension system had "high levels of front suspension jacking" that further compounded then fundamental design flaws. Jacking is a phenomenon associated with swing-axle-type suspension systems that causes the center of gravity to rise and the track width to narrow in turning maneuvers. (See ¶70-71 of Factual Presentation)[286] Ford had an opportunity to improve the Explorer's stability when it modified the Explorer front suspension design for the 1995-2000 models. But again, financial considerations prevailed and, according to a 1990 internal Ford document, Ford decided "not [to] take advantage of the fact that the engine could be lowered with the modified suspension. This decision was driven by early implementation and program cost. As a result, the 2000 model Explorer was no more stable than the original model or its prototypes. (See ¶70-71 of Factual Presentation)[287]

285 *Id*. See Also, Exhibit 25 - Deposition of Jerry Sloan at pages 66:13, 76:17-77:10.
286 Exhibit 27 – Ford document 9863; Exhibit 28.
287 Id.

In the years to follow, Ford continued to test the Explorer and gained even more knowledge of the defective nature of the vehicle as it pertained to rollovers and in particular, road reentry situations such as the subject accident in this case. (See ¶56 of Factual Presentation)[288] Plaintiff's expert Dr. Sri Kumar testified that had the Ford Explorer not rolled over, Mr. Ammerson would not have sustained catastrophic neurological injuries.[289] As the Court can see from the entirety of the fact presentation as well as the evidence highlighted in this section, Ford had actual knowledge of the dangerous defects present in the subject Explorer and simply chose to ignore it to benefit the company's bottom line.

c. **PREVIOUS RULINGS**

There has been nearly three decades surrounding the Explorer and countless other courts have evaluated the same evidence and found that Ford's actions did in fact rise to the level of willful wanton conduct. Not only have courts found that these same facts precluded summary judgment on the issue of punitive damages, juries have found these same facts warranted imposing punitive damages and appellate review has upheld the same. One of many examples is *Buell-Wilson v. Ford Motor Co.*, 160 Cal.App.4th 1107 (Cal. Ct. App. 2008). In that case, which also involved a 2000 Ford Explorer, the court

288 Exhibit 19 – Ford document EXPI 619-24.
289 Exhibit 43 - Report of Dr. Sri Kumar at page 4.

found that Ford was not entitled to summary judgment on plaintiff's punitive damages claims after evaluating the exact same facts and exhibits pertaining to the Explorer that are presented here.[290] The jury found by clear and convincing evidence – pursuant to the same willful wanton standard the Court must apply here – that the plaintiffs were entitled to 200 million dollars in punitive damages. While the appellate court found there was indeed clear and convincing evidence of the willful wanton conduct, they reduced the punitive damages award to 55 million dollars. The forty-five page order can be summed by with one simple statement from the court, "there is substantial evidence that Ford's decision makers knew how to make the Explorer less dangerous, but chose not to because of financial considerations."[291]

In *Goettsch v. Ford*, No. 1:03-CV-01374-PSF-OES (D. CO Aug. 12, 2005) the court was presented with a similar rollover involving a 1996 Ford Explorer. Like this case, as well as *Buell-Wilson,* the court was presented with the same evidence of Ford's egregious actions in design, production and sale of the defective Explorer. What is different about *Goettsch* is that Colorado requires a higher standard of proof for punitive damages.[292] In denying Ford's motion for summary judgment, the court held the evidence presented – the same evidence before this Court today – rose to the even

290 *Id*. at 1125-1127.
291 *Id*. at 1150.
292 C.R.S. § 1325127(2)

stricter standard of *beyond a reasonable doubt*. [293] The logical conclusion is that if the evidence presented herein has been found to meet this stricter standard, then summary judgment is certainly not appropriate here where Georgia law requires a lesser standard and at a stage in which the evidence must be viewed in a light most favorable to Plaintiff.

The referenced evidence precludes summary judgment on the issue of punitive damages. Ford's compliance with minimum safety standards likewise does not help Ford because compliance with applicable safety regulations does not preclude an award of punitive damages where "there is other evidence showing culpable behavior."[294] In addition to her experts' opinions, Plaintiffs have provided ample evidence of willful wanton conduct by Ford through the testimony of their own employees as well as countless internal company documents.

F. ATTORNEY'S FEES/EXPENSES

The issue of attorney fees under O.C.G.A. § 13-6-11 is a question for the (factfinder) and an award will be upheld if any evidence is presented to support the award. O.C.G.A. § 13-6-11 provides for expenses of litigation where the

293 *Goettsch v. Ford* at p. 10.

294 *General Motors Corp. v. Moseley*, 447 S.E.2d 302, 311 (1994), abrogated on other grounds by *Webster v. Boyett*, 497 S.E.2d 459 (1998), and *Reynolds v. General Motors Corporation*, CIVIL ACTION No. 2:04-CV-0106-RWS, at *29-31 (N.D. Ga. Sep. 28, 2007).

defendant has acted in bad faith, has been stubbornly litigious, or has caused the plaintiff unnecessary trouble and expense.

Burlington Air Express v. Ga.-Pacific Corp., 217 Ga. App. 312, 312-13 (1995) (citation, quotation, and alteration omitted). "[D]espite the existence of a bona fide controversy as to liability, a factfinder may find that defendant acted in the most atrocious bad faith in his dealing with the plaintiff. *Id.* at 313 (citation, quotation, and alteration omitted).

Ford repeats its contention that a "bona fide" controversy exists in this case and, therefore, attorney's fees may not be awarded.[295] For this proposition, Ford cites to this Court's decision in *Coldwell Banker Commercial Grp., Inv. v. Nodvin*, 598 F. Supp. 853, 861 n.11 (N.D. Ga. 1984). Under Georgia law, "the existence of a bona fide controversy negates the possibility of a statutory award [pursuant to O.C.G.A. § 13-6-11] only where bad faith is not at issue." *Oglethorpe Power Corp. v. Estate of Forrister*, 332 Ga. App. 693, 705 (2015) (citation and alternation omitted).

Plaintiffs have produced compelling evidence of bad faith, which is set forth in Plaintiff's response to Defendant Ford's motion for summary judgment at to punitive damages and statute of repose. For example, Ford's decision to actively conceal problems with the Explorer's handling by instructing Firestone to refrain from putting

295 Ford's Brief, page 19.

test results in writing,[296] and Ford's decision to forego safety modifications to the Explorer to save cost.[297] Therefore, Plaintiff has produced "some evidence of bad faith" and Defendant Ford's motion must be denied.

Further, in a case like this, where there is evidence supporting punitive damages, attorney's fees under O.C.G.A. § 13-6-11 are appropriate. *See e.g. Ogelthorpe Power Corp*. 332 Ga. App. at 706 (finding that there was some evidence of bad faith in case finding that punitive damages were supported by the record). Finally, where it is shown that an auto manufacturer has knowledge of a defect at the time the vehicle is manufactured, and the defect causes injury, the facts amply support the recovery of attorney's fees and litigation expenses. *Ford Motor Co. v. Stubblefield*, 171 Ga. App. 331, 343 (1984) (holding that "case amply authorized an award of litigation expenses . . .as Ford was shown to have actual knowledge before the sale of a defect in its product from which it could have reasonably foreseen injury of the specific type sustained here."). Ford's knowledge of the defects at issue is set forth in detail in Plaintiff's response to Ford's motion for summary judgment based on

296 Exhibit 35-Ford document FMC 183 (1990)
297 Exhibit 39-Affidavit of Mark Arndt at page 5; Exhibit 18-Depostion of Don Tandy at page 33, line 11 to page 35, line 15 and page 47 line 10 page 59, line 25, and page 49, lines 23-25.

the statute of repose and Ford's motion for summary judgment as to punitive damages. [298]

CONCLUSION

The referenced evidence precludes summary judgment in Ford's favor regarding the statute of repose, punitive damages, and attorney's fees and expenses. Ford's compliance with minimum safety standards likewise doesn't help Ford because compliance with applicable safety regulations does not preclude a finding that they acted in a willful, wanton, or reckless manner as it pertains to the statute of repose nor does complying with a safety standard preclude an award of punitive damages where "there is other evidence showing culpable behavior."[299]

For the reasons stated herein, Ford's motion must be denied.

CERTIFICATE OF COMPLIANCE

I hereby certify, pursuant to LR 7.1 D, ND Ga., that the foregoing pleading was prepared using 14 point Times New Roman font.

Dated this 15th day of April, 2022.

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298 Plaintiffs are not pursuing the failure to warn and negligent failure to recall claims.

299 *General Motors Corp. v. Moseley*, 447 S.E.2d 302, 311 (1994), abrogated on other grounds by *Webster v. Boyett*, 497 S.E.2d 459 (1998), and *Reynolds v. General Motors Corporation*, CIVIL ACTION No. 2:04-CV-0106-RWS, at *29-31 (N.D. Ga. Sep. 28, 2007).

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